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A Review of the Nass River Test Fishery Biological Program for 1987 and 1988

D.R. Southgate, V.L. Craig and A.L. Jantz

Department of Fisheries and Oceans
Fisheries Branch
Prince Rupert, B.C. V8J 1G8

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Prince Rupert, British Columbia
V8J 1G8

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TABLE OF CONTENTS

Abstract/Resume iv

Introduction 1

Methods 1

Results 5

Acknowledgements 6

References 7

Appendix 1: 1988 and 1987 Nass River Test Fishery Service Contract 8

Appendix 2: Prince Rupert Harbour tide tables for June through September, 1987 13

Appendix 3: Prince Rupert Harbour tide tables for June through September, 1988 14

Appendix 4: Daily Catch Information for the Nass Test Fishery, 1987 15

Appendix 5: Daily Catch Information for the Nass Test Fishery, 1988 24

Appendix 6: Daily Index Calculation of Sockeye and Chinook at the Nass Test Fishery, 1987 35

Appendix 7: Daily Index Calculation of Sockeye and Chinook at the Nass Test Fishery, 1988 36

Appendix 8: 1987 Nass Gillnet Test Fishery Sockeye age, sex and length data 37

Appendix 9: 1988 Nass Gillnet Test Fishery Sockeye age, sex and length data 57

Appendix 10: 1987 Nass Gillnet Test Fishery Chinook age, sex and length data 79

Appendix 11: 1988 Nass Gillnet Test Fishery Chinook age, sex and length data 82

Appendix 12: Weekly Summary of Sockeye Age Composition data from the Nass Test Fishery, 1987 84

Appendix 13: Weekly Summary of Sockeye Age Composition data from the Nass Test Fishery, 1988 85

Appendix 14: Weekly Summary of Sockeye Age/Length data from the Nass Test Fishery, 1987 86

Appendix 15: Weekly Summary of Sockeye Age/Length data from the Nass Test Fishery, 1988 87

Appendix 16: Relationship between Annual Nass Test Fishery Index of Spawning Escapement and Recorded Escapement from Stream Surveys from 1963 to 1988 88

ABSTRACT

Southgate, D.R., V.L. Craig and A.L. Jantz, 1989. Review of the Nass River test fishery biological program for 1987 and 1988. Can. Data Rep. Fish. Aquatic. Sci. 738: iii + 87p.

Information relating to the Nass River gillnet test fishery program for 1987 and 1988 is presented in this report. Daily catch of all salmon species (Oncorhynchus sp.) and steelhead trout (Salmo gairdneri) are detailed by set along with age, sex and length data for sockeye and chinook salmon.

Set times and duration, position in tide cycle, weather and water conditions and water temperature are presented as well. Daily index calculations are tabulated for sockeye and chinook along with escapement estimates for sockeye. In addition the historical relationships between the annual test fishery index for sockeye and the actual escapement count from the spawning grounds is presented.

RESUME

Southgate, D.R., V.L. Craig and A.L. Jantz, 1989. Review of the Nass River test fishery biological program for 1987 and 1988. Can. Data Rep. Fish. Aquatic. Sci. 738: iii + 87p.

Ce rapport présente les données concernant le programme de pêche expérimentale au filet maillant sur la rivière Nass pour 1987 et 1988. Les prises quotidiennes de toutes les espèces de saumon (Oncorhynchus sp.) et de truite arc-en-ciel anadrome (Salmo gairdneri) sont présentées pour chaque trait de filet, ainsi que les données sur l'âge, le sexe et la longueur pour le saumon rouge et le quinnat.

L'heure et la durée des traits, le moment du cycle maréal, les conditions météorologiques et l'état de l'eau sont également indiqués. Les calculs de l'indice quotidien sont présentés pour le saumon rouge et le quinnat, ainsi que les estimations des échappées pour le saumon rouge. Le rapport indique de plus la relation observée au fil des années entre l'indice annuel de la pêche expérimentale du saumon rouge et le dénombrement réel des géniteurs sur les frayères.

1.0 INTRODUCTION

The Nass River test fishery has been operated annually since 1963, with little change from the original program. The test fishery occurs on the lower Nass River near Monkley Creek, approximately 16 km from the commericial fishing boundary near Kincolith. (see Figures 1 and 2). The site is locally referred to as Monkley Dump. Alternate test sites were examined in 1969 but with unfavorable results (Dickson & Vroom,1970).

The test fishery program provides a daily estimate of the sockeye escapement into the Nass River. The data obtained from this operation is combined with estimates of the commercial catch in Area 3 to provide an indication of how the sockeye run is developing . Although daily escapement estimates are not calculated for the other species of salmon the relative abundance and timing of chinook is determined by comparing calculated indices. This report documents the information collected during the 1987 and 1988 test fishery programs.

2.0 METHODS

The Department of Fisheries and Oceans chartered the North Roamer, a 35 ft. wooden gillnet fishing vessel to conduct the Nass River test fishery for both the 1987 and 1988 seasons. The charter was obtained following the standard contractual arrangements as outlined in Appendix 1. In 1987 test fishing proceeded from June 6 through July 31. During the 1988 season test fishing was conducted from June 3 until July 29.

2.1 Drift Area

Daily sets are made only on low slackwater tides. Low tide at the test fishery site usually occurs four to five hours after the low tide listed in the tide book for Prince Rupert Harbour. Prince Rupert Harbour tide tables for 1987 and 1988 can be referred to in Appendix 2 and 3 respectively. The final descision as to the exact occurrence of slack water and when the set is made is left to the discretion of the test fisherman. Two sets of

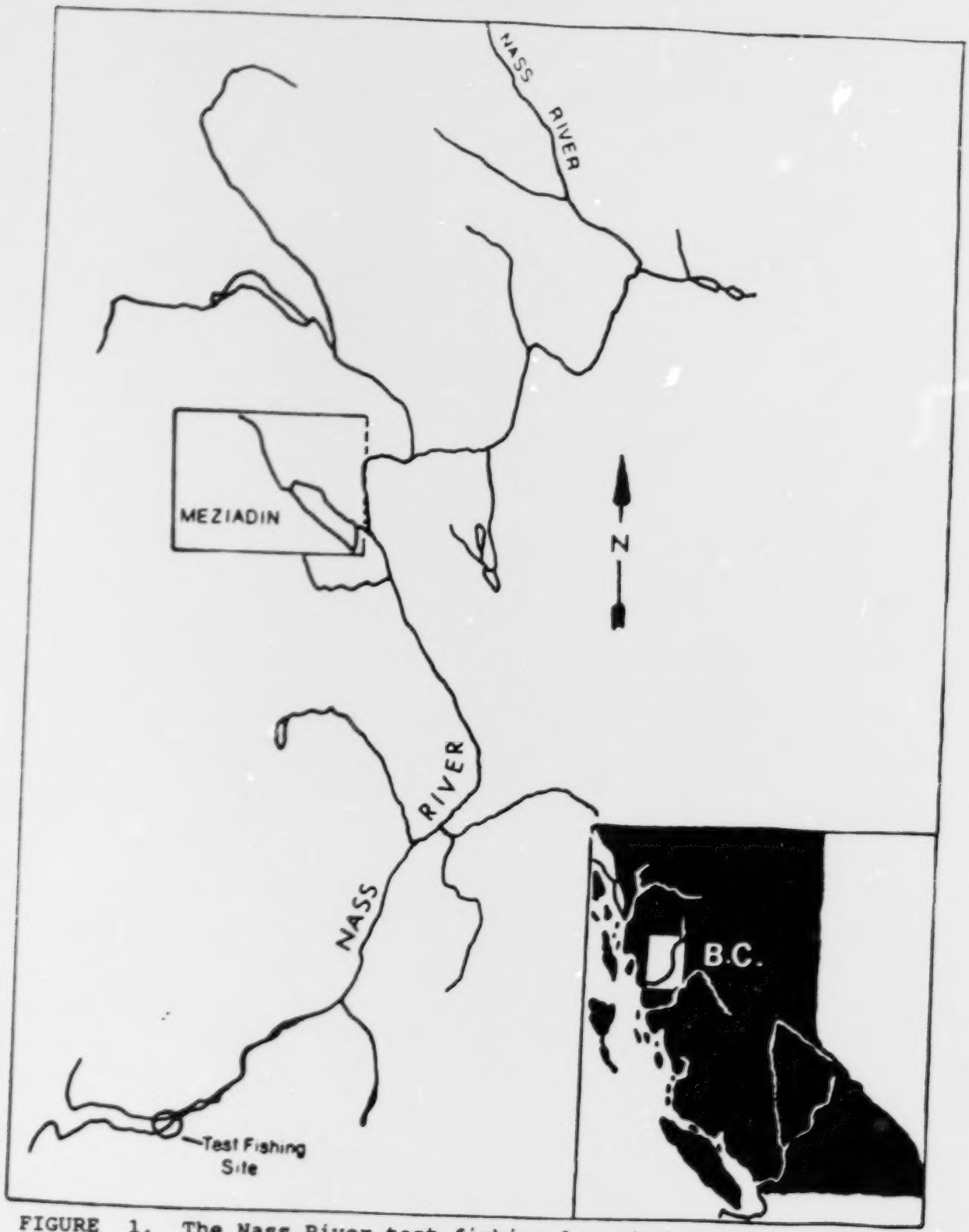


FIGURE 1. The Nass River test fishing location on the lower Nass River within the Nass River watershed.

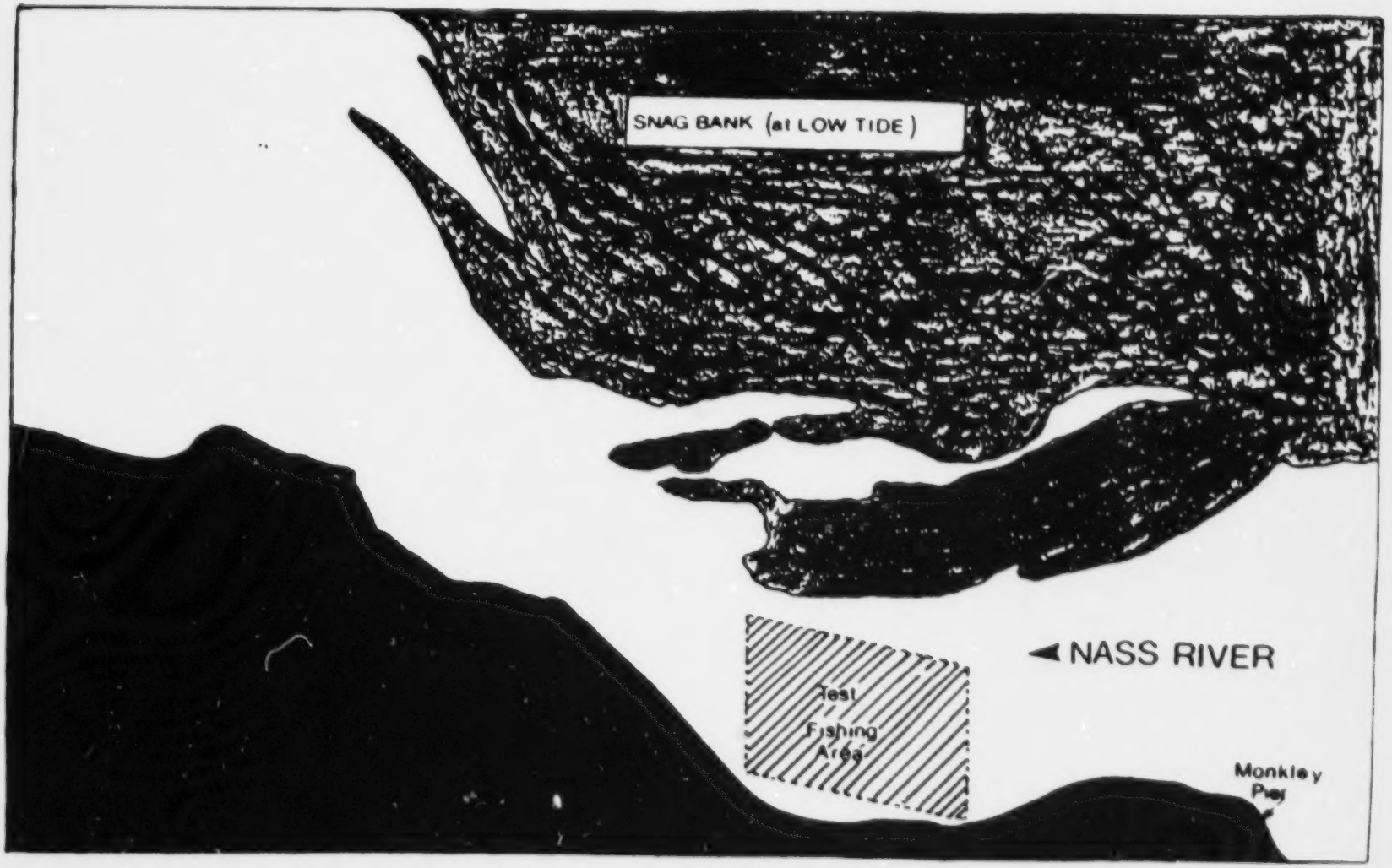


FIGURE 2. Test fishery site on the Nass River between Snag Bank and Monkley Pier.

approximately 15 minutes in duration are made during each low slack water, the second immediately after the first. Exact times of all drifts were recorded as follows:

1) Set time begins when the first cork goes over the drum, and ends when the last cork goes over the drum.

2) A 10 minute drift begins from the time the last cork goes over the drum.

3) Pick up time (after the 10 minute drift) begins when the first cork is over the drum and ends when the last cork is back over the drum after the fish and debris have been picked out of the net.

Any time there were problems with the net such as it bunching up or getting snagged the test fisherman had to use his own judgement as to whether the net was still "fishing". Accurate recordings of these times were essential for the calculation of the index.

2.2 Total fishing time and Index Calculations

In order to calculate the Nass Test Fishery index the total fishing time and total catch is required for each of the four sets. Total fishing time equals the sum of the drift time (10 minutes) plus 1/2 of both the set and pick up times as described above.

Example:

Set time is 5 minutes divided by 2 = 2.5 minutes
Drift time is 10 minutes = 10.0 minutes
Pick up time is 8 minutes divided by 2 = 4.0 minutes

Total fishing time is 16.5 minutes

The daily catch x 1000 / net length (100 fathoms) x total fishing time.

2.3 Test Nets

Three identical nets are used during the program and are alternated on a daily basis to allow for repairs. Each net is 100 fathoms in length and consists of three separate "panels" each of which is 33 and 1/3 fathoms in length. The three mesh sizes are as follows:

1) 4" mesh, 50 meshs deep
2) 4 1/2" mesh, 45 meshs deep
3) 5" mesh, 40 meshs deep

The specifications for the twine consist of number 23 twine - n.9.13, the colour is Momoi shade 3 (light green). The lead line is a river lead line (200-220 lbs.) and the net is hung in a two to one ratio.

2.4 Sampling

All information is recorded in the log book immediately after each set. This includes date, set times, catch by species, weather, seal abundance and water conditions. All sockeye caught are sampled as follows:

1) sex
2) scales
3) hypural length
4) nose/fork length

The same samples are collected from chinook except that 5 scales instead of 2 are sampled.

During the last two years electrophoretic and brain parasite samples have also been taken as part of the on going International sockeye sampling program.

2.5 Delivery of Catch

The catch is delivered on a weekly basis to local Prince Rupert processing plants by the test fisherman. The test fisherman leaves the site to make his delivery after the first set series on Wednesday of each week and is back at the test site by the second set series on Friday unless other arrangements have been made.

3.0 RESULTS

The daily set information of the test fishery for 1987 and 1988 is presented in Appendix 4 and 5 respectively. This information includes daily set and pick-up times, catch of all species and total fishing time. During 1987 the cumulative index for sockeye was a total index of 228.25 and

38.38 for large chinook. In 1988 the cumulative indices were 258.82 for sockeye and 41.97 for large chinook. Appendix 6 and 7 present the daily and cumulative indices for 1987 and 1988, respectively.

In 1987, 1025 sockeye and 109 chinook were sampled and in 1988, 1155 sockeye and 89 chinook. The biological information collected for each individual fish sampled in 1987 and 1988 is recorded in Appendices 8 and 9 for sockeye and Appendices 10 and 11 for chinook. The weekly age composition of sockeye by sex is presented in Appendix 12 for 1987 and Appendix 13 for 1988. Average post orbital to hypural and nose/fork lengths by sex and age class are presented in Appendices 14 and 15 for 1987 and 1988 respectively.

Appendix 16 presents the historical relationship between the annual sockeye test fishing index and the actual escapement to the spawning grounds. The total escapement in 1987 was 191,160 and in 1988 was 145,457.

4.0 ACKNOWLEDGEMENTS

The authors would like to thank M. Jakubowski and D. Haugan for their help in the final preparations of this report.

REFERENCES

Dickson and Vroom, 1970. An Investigation into an Alternate Test Fishing Site on the Nass River, 1969. Technical Report 1970-4. 15p.

APPENDIX 1: 1988 and 1987 Nass River Test Fishery Service Contract.

NASS RIVER TEST FISHERY SERVICE CONTRACT

SEALED TENDERS, addressed to the Head Contracts Section, Material Management Division, Department of Fisheries and Oceans, Registry Office, 555 West hastings Street, Vancouver, B.C. V6B 5G3 and marked:

TENDER FOR:

NASS TEST PROGRAM
VC88-005

Tenders will be received up to 2:00 pm local time, May 6, 1988 for the following services:

One gillnet vessel for test fishing on the Nass River at the site commonly referred to as Monkley Dump. Test fishing to commence on or about the 6 th of June, 1988 and to terminate no later than August 5, 1988; approximately 61 days.

Skipper will also provide biological sampling and record keeping.

The lowest or any bid will not necessarily be accepted. Payment of the service contract is to be from the sale of fish caught during the operation. Bids are to be expressed in pounds of sockeye per day.

Tender forms are available through the Fisheries office in Prince Rupert, or through the Registry office at 555 West Hastings Street, Vancouver. For further information and/or to receive a copy of the tender form, please call David Southgate or Les Jantz in Prince Rupert at 624-0468.

APPENDIX 1: Continued.

GENERAL

1. The Department of Fisheries will be responsible for installation and removal of the test float.

2. The Department of Fisheries will supply all necessary sampling equipment.

3. The test fisherman must demonstrate an ability and willingness to communicate his interpretation of stock habits to DFO representatives only. Discretion must be used when communicating on private frequencies.

4. Test fisherman will carry out all necessary sampling before he proceeds with the removal of catch. A program outline will be provided for the test fisherman and he/she will be required to follow the guide closely.

5. Test fisherman will not be eligible to enter the commercial fishery while on charter to DFO.

6. Test fisherman must have valid 1988 "A" license.

7. In the event of a shortfall, sockeye prices will be based on the 1987 average landed value as determined by DFO through consultation with industry. Other species will be converted to sockeye equivalent. (Prices for other species will also be based on the 1988 average landed value.)

8. Cost of relaying information daily to the DFO offices (telephone calls) are to be borne by test fisherman.

9. Services will be for a minimum of twenty (20) days and a maximum of eighty (80) days.

10. At the conclusion of the charter, a written performance appraisal may be completed.

Details and Conditions are as follows:

1. Vessel to be supplied with operator.

2. Fisherman must be fully knowledgeable in commercial gillnetting with a minimum of ten (10) years experience. The fisherman must have fished and be familiar with the area to be tested; Area 3 (Nass River Management unit 3-12).

3. Fisherman will be requested to carry out electrophoretic sampling during the charter.

4. a) Fisherman will be responsible for delivery of catch to the processing plant of his choice. (i.e. fisherman will provide ice boxes/suitable vehicle or arrange for delivery of catch with a packer at his expense.) Copies of delivery slips must be give to DFO personnel after each delivery.

   b) In the case of private sales, the fisherman is required to supply DFO with receipts.

5. Fisherman must be prepared to work at any hour of the day or night. A minimum of four (4) - ten (10) minute sets are required during each 24 hour period.

6. All nets and lines will be supplied by DFO. (Fisherman will have to repair test nets continually throughout the program.)

7. Vessel Requirements:

   a) Vessel must conform fully with M.O.T. safety regulations and be in excellent overall condition.

   b) Radar is required.

   c) The test fisherman will be required to supply all fuel, water, lubricants, etc.

   d) The vessel must have ample room behind the drum for two (2) persons to tag and sample, if required.

8. Deckhand Requirements:

   a) Must have previous experience in salmon gillnetting (minimum 2 years).

   b) Some knowledge and ability in the following sampling techniques on salmonids: species identification, scale removal, fin clipping, lengths, sexing, electrophoretic sampling, otoliths, fecundity, spaghetti and petersondisc tagging.

   c) Must be able to keep neat, accurate records.

Department of Fisheries
Fisheries Management
555 West Hastings Street
Vancouver, B.C.
V6B 5G3

OFFER TO TESTFISH - TENDER FORM

I/we the undersigned, hereby offer the following gillnet vessel to partake in the area _____test fishing in accordance with the terms and conditions attached:

1) Name of Vessel_____.

2) Name(s) of Owner(s)_____.

3) Address of Owner(s)_____.

4) Location of vessel (for inspection purposes)_____.

5) Name of Operator_____.

6) Number of years licensed salmon fishing experience_____.

7) a) Number of years fished in Area 3_____.

b) Number of years fished in Nass River (management unit 3-12)_____.

8) Previous Test Fishing experience inside Test area_____.

9) Previous Test Fishing experience outside Test area_____.

10) Vessel length_____ Beam_____.

11) Vessel construction - Material_____.

12) Vessel construction - Date_____.

13) Expiry date of MOT inspection_____.

14) Gross tonnage_____ Registered tonnage_____.

15) Engine make_____ H.P._____.

16) Fuel type_____.

17) Cruising speed_____.

18) Radiotelephone(s): Make_____.

19) Radar (make)_____ Sounder (model)_____.

20) Life saving equipment carried_____.

21) Service to commence and terminate at_____.

APPENDIX 1: Continued.

22) Deckhand:

a) Number of years fishing as gillnet deckhand_____.

b) Sampling experience (use Deckhand Requirement section as guide)_____

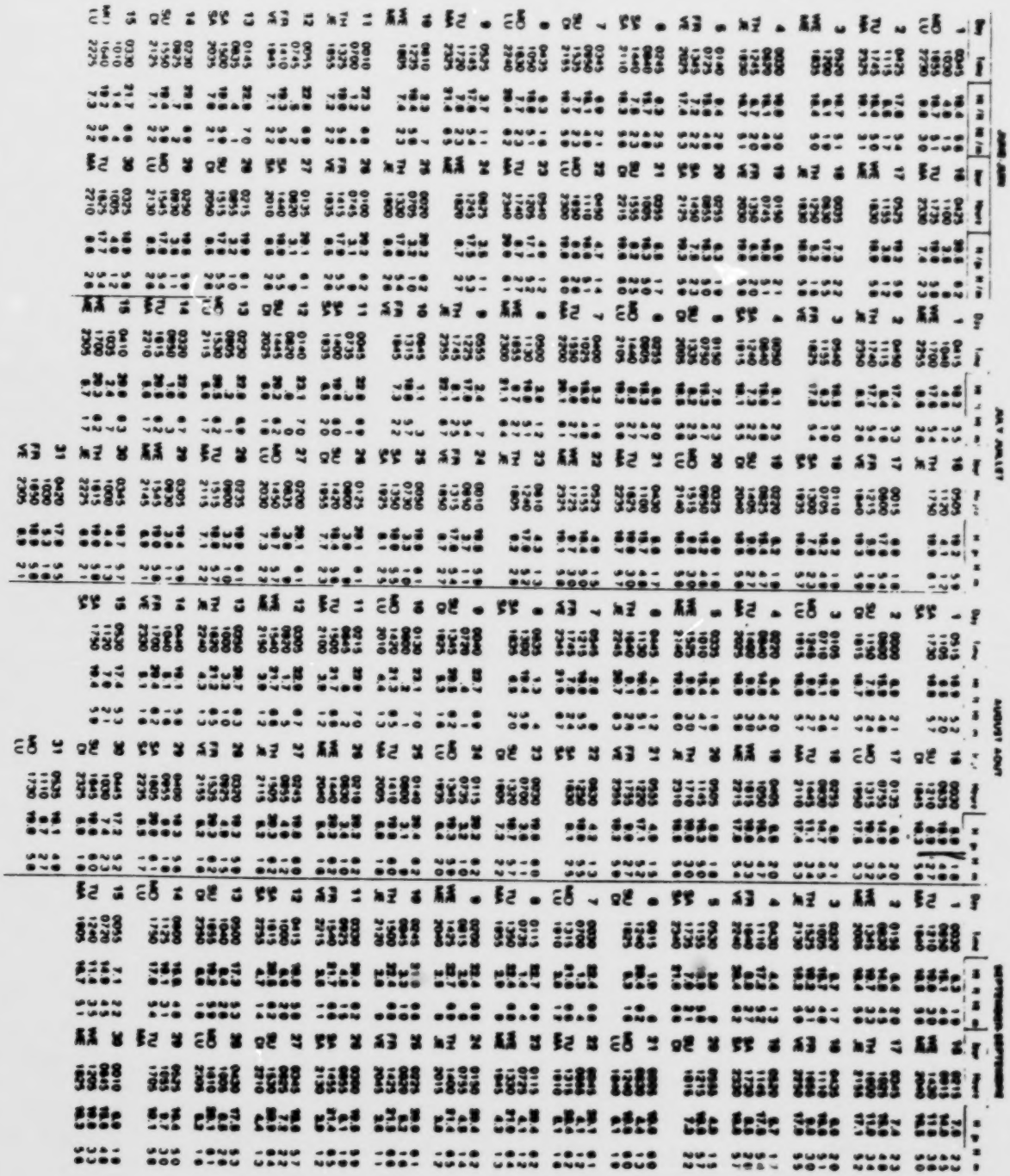
_____.

23) Bid on rate per day to be expressed in pounds of sockeye (with deckhand included)_____.

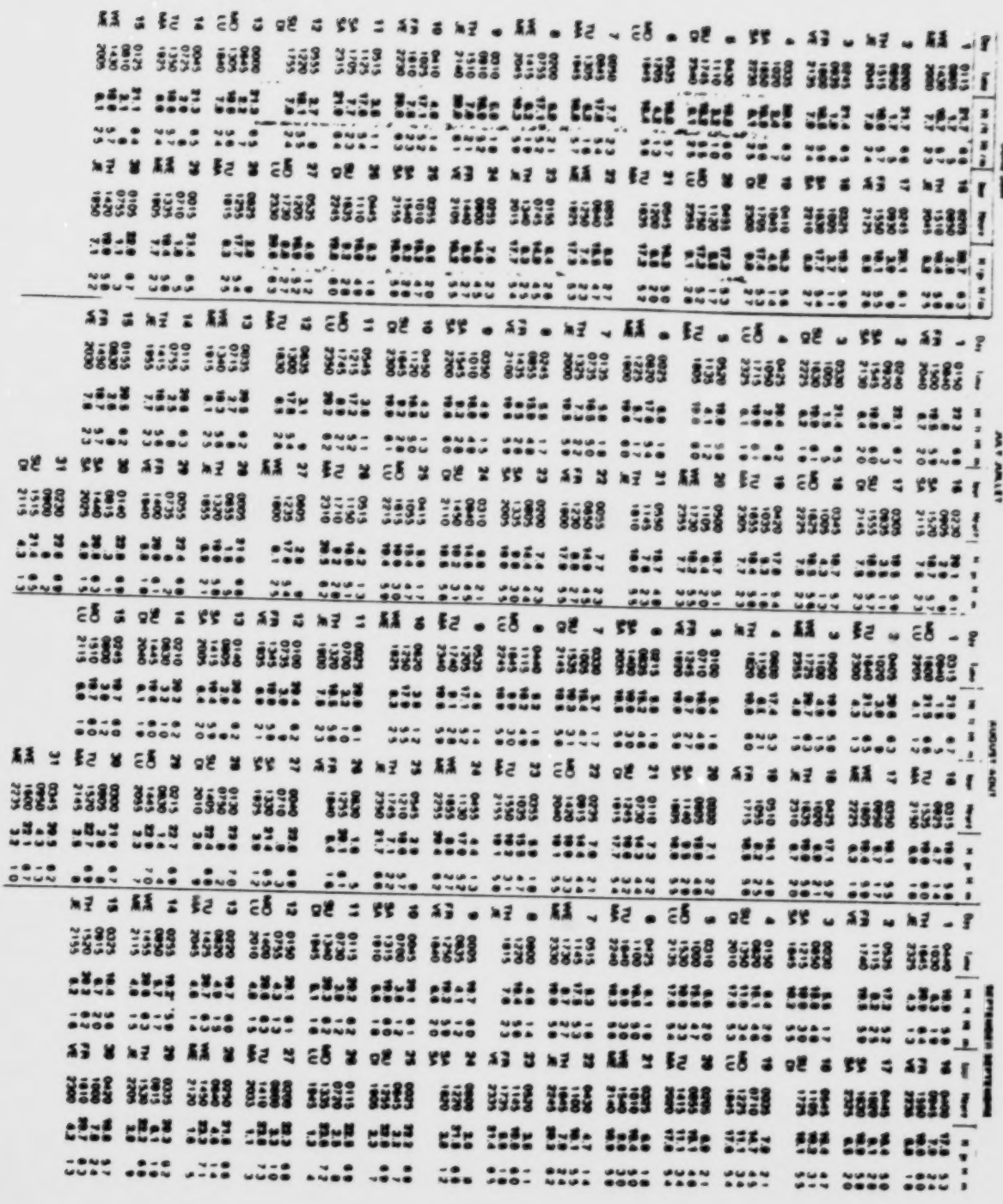
24) Signature(s) of registered Owner(s)_____.

Date_____.

APPENDIX 2: Prince Rupert Harbour tide tables for June through September, 1987.



APPENDIX 3: Prince Rupert Harbour tide tables for June through September, 1988.



APPENDIX 4. Daily catch information for the Nass test fishery, 1987.

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 1	1	15	41	15	52	15.5	0	0	0	0	0	0	0
		15	42	16	2								
	2	16	8	16	20	16	0	0	0	0	0	0	0
		16	10	16	30								
					TOTAL	31.5	0	0	0	0	0	0	0
JUNE 2	1	4	7	4	20	15	0	0	0	0	0	0	0
		4	10	4	27								
	2	4	33	4	45	14	0	0	0	0	0	0	0
		4	35	4	51								
	3	16	38	16	50	13.5	0	0	0	0	0	0	0
		16	40	16	55								
	4	17	2	17	14	14	0	0	0	0	0	0	0
		17	4	17	20								
					TOTAL	56.5	0	0	0	0	0	0	0
JUNE 3	1	4	23	4	34	13.5	0	1	0	0	0	0	0
		4	24	4	40								
	2	4	46	4	58	13	0	0	0	0	0	0	0
		4	48	5	2								
					TOTAL	26.5	0	1	0	0	0	0	0
JUNE 5	1	18	32	18	44	14	1	0	0	0	0	0	0
		18	34	18	50								
	2	18	56	19	8	15	0	0	0	0	0	0	0
		18	58	19	16								
					TOTAL	29	1	0	0	0	0	0	0
JUNE 6	1	7	41	7	53	13	1	3	0	0	0	0	0
		7	43	7	57								
	2	8	4	8	16	13.5	0	0	0	0	0	0	0
		8	6	8	21								
	3	19	56	20	8	16.5	0	0	0	0	0	0	0
		19	58	20	19								
	4	20	25	20	37	15	0	0	0	0	0	0	0
		20	27	20	45								
					TOTAL	58	1	3	0	0	0	0	0
JUNE 7	1	8	59	9	11	12.5	0	1	0	0	0	0	0
		9	1	9	14								
	2	9	23	9	35	12.5	0	1	0	0	0	0	0
		9	25	9	38								
	3	20	26	20	39	14	0	1	0	0	0	0	0
		20	29	20	44								
	4	20	48	21	0	13.5	2	0	0	0	0	0	0
		20	50	21	5								
					TOTAL	52.5	2	3	0	0	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 8	1	9	30	9	42	13.5	0	1	0	0	0	0	0
		9	32	9	47								
	2	9	53	10	5	13	0	0	0	0	0	0	0
		9	55	10	9								
	3	20	48	21	0	13	2	0	0	0	0	0	0
		20	50	21	4								
	4	21	7	21	19	13	0	0	0	0	0	0	0
		21	9	21	23								
					TOTAL	52.5	2	1	0	0	0	0	0
JUNE 9	1	10	32	10	44	15	0	0	0	0	0	0	0
		10	34	10	52								
	2	10	58	11	10	18	0	0	0	0	0	0	0
		11	0	11	24								
	3	21	12	21	23	15	1	1	0	0	0	0	0
		21	13	21	32								
	4	21	39	21	51	13.5	0	0	0	0	0	0	0
		21	41	21	56								
					TOTAL	61.5	1	1	0	0	0	0	0
JUNE 10	1	11	13	11	25	13	0	0	0	0	0	0	0
		11	15	11	29								
	2	11	37	11	49	13.5	0	0	0	0	0	0	0
		11	39	11	54								
					TOTAL	26.5	0	0	0	0	0	0	0
JUNE 15	1	15	47	15	59	14	2	3	0	0	0	0	0
		15	49	16	5								
	2	16	11	16	23	14.5	1	2	0	0	0	0	0
		16	13	16	30								
					TOTAL	28.5	3	5	0	0	0	0	0
JUNE 16	1	3	53	4	5	18	7	6	0	0	0	0	1
		3	55	4	19								
	2	4	26	4	38	13.5	2	2	0	0	0	0	0
		4	28	4	43								
	3	16	17	16	29	16	14	2	2	0	0	0	0
		16	19	16	39								
	4	16	41	16	53	15	7	5	0	0	0	0	1
		16	43	17	1								
					TOTAL	62.5	30	15	2	0	0	0	2
JUNE 17	1	4	39	4	51	20	8	14	0	0	0	0	1
		4	41	5	9								
	2	5	12	5	24	13.5	1	4	1	0	0	0	0
		5	14	5	29								
	3	16	51	17	3	19.5	10	19	3	0	0	0	0
		16	53	17	20								
	4	17	24	17	36	15	3	2	1	0	0	0	0
		17	26	17	44								
					TOTAL	68	22	39	5	0	0	0	1

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 18	1	5	1	5	13	16.5	5	8	3	0	0	0	0
		5	3	5	24								
	2	5	29	5	41	16	1	6	1	0	0	0	0
		5	31	5	51								
	3	17	21	17	33	16	8	5	3	0	0	0	0
		17	23	17	43								
	4	17	48	18	0	14	9	0	0	0	0	0	0
		17	50	18	6								
					TOTAL	62.5	23	19	7	0	0	0	0
JUNE 19	1	6	10	6	21	15.5	12	2	3	0	0	0	0
		6	11	6	31								
	2	6	38	6	50	15.5	4	3	2	0	0	0	0
		6	40	6	59								
	3	18	13	18	25	16	10	3	1	0	0	0	0
		18	15	18	35								
	4	18	40	18	52	15	6	1	0	0	0	0	0
		18	42	19	0								
					TOTAL	62	32	9	6	0	0	0	0
JUNE 20	1	7	26	7	38	17	20	2	1	0	0	0	0
		7	28	7	50								
	2	7	57	8	9	13.5	2	3	1	0	0	0	0
		7	59	8	14								
	3	19	9	19	20	18.5	15	4	2	0	0	0	0
		19	10	19	36								
	4	19	36	19	48	13.5	2	4	2	0	0	0	0
		19	38	19	53								
					TOTAL	62.5	39	13	6	0	0	0	0
JUNE 21	1	8	11	8	23	16.5	11	2	2	0	0	0	0
		8	13	8	34								
	2	8	40	8	52	14.5	4	1	0	0	0	0	0
		8	42	8	59								
	3	20	41	20	52	15.5	8	0	2	0	0	0	0
		20	42	21	2								
	4	21	6	21	18	14.5	1	2	0	0	0	0	0
		21	8	21	25								
					TOTAL	61	24	5	4	0	0	0	0
JUNE 23	1	11	33	11	44	14.5	2	0	1	0	0	0	0
		11	34	11	52								
	2	11	57	12	9	16	7	0	0	0	0	0	0
		11	59	12	19								
	3	21	59	22	11	15.5	10	0	0	0	0	0	0
		22	1	22	20								
	4	22	26	22	38	14.5	7	0	0	0	0	0	0
		22	28	22	45								
					TOTAL	60.5	26	0	1	0	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 24	1	11	51	12	2	14.5	8	2	1	0	0	0	0
		11	52	12	10								
	2	12	16	12	28	15.5	7	2	0	0	0	0	0
		12	18	12	37								
					TOTAL	30	15	4	1	0	0	0	0
JUNE 26	1	13	21	13	33	14.5	11	0	0	0	0	0	0
		13	23	13	40								
	2	13	45	13	57	15	9	1	0	0	0	0	0
		13	47	14	5								
					TOTAL	29.5	20	1	0	0	0	0	0
JUNE 27	1	23	55	24	7	16	10	1	2	0	0	0	0
		23	57	24	17								
	2	0	21	0	33	13.5	1	1	0	0	0	0	0
		0	23	0	38								
	3	13	24	13	35	13.5	7	1	0	0	0	0	0
		13	25	13	41								
	4	13	45	13	57	14.5	8	1	2	0	0	0	0
		13	47	14	4								
					TOTAL	57.5	26	4	4	0	0	0	0
JUNE 28	1	1	23	1	35	14	6	1	0	0	0	0	0
		1	25	1	41								
	2	1	43	1	55	15	9	2	1	0	0	0	0
		1	45	2	3								
	3	14	13	14	25	13	1	0	0	0	0	0	0
		14	15	14	29								
	4	14	33	14	45	14.5	6	1	0	0	0	0	0
		14	35	14	52								
					TOTAL	56.5	22	4	1	0	0	0	0
JUNE 29	1	1	37	1	49	17.5	10	1	1	1	0	0	0
		1	39	2	2								
	2	2	8	2	20	14	1	1	0	0	0	0	0
		2	10	2	26								
	3	14	52	15	4	15.5	8	2	0	0	0	0	0
		14	54	15	13								
	4	15	20	15	32	14.5	8	0	1	0	0	0	0
		15	22	15	39								
					TOTAL	61.5	27	4	2	1	0	0	0
JUNE 30	1	2	29	2	41	21.5	14	0	1	0	0	0	0
		2	31	3	2								
	2	3	9	3	21	16	4	1	0	0	0	0	0
		3	11	3	31								
	3	16	14	16	25	26.5	15	0	0	0	0	0	0
		16	15	16	57								
					TOTAL	64	33	1	1	0	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 4	1	6	46	6	53	8.5	1	0	0	0	0	0	0
		6	48	6	58								
	2	7	6	7	13	9.5	0	0	0	0	0	0	0
		7	8	7	20								
	3	19	14	19	24	13	5	0	0	1	0	0	0
		19	16	19	32								
	4	19	38	19	48	13	5	0	0	0	0	0	0
		19	40	19	56								
					TOTAL	44	11	0	0	1	0	0	0
JULY 5	1	7	28	7	35	9.5	1	0	0	0	0	0	0
		7	30	7	42								
	2	7	48	7	55	9	0	0	0	0	0	0	0
		7	50	8	1								
	3	18	46	19	58	15	11	0	1	0	0	0	0
		18	48	19	6								
	4	19	13	19	25	16.5	14	1	4	0	0	0	0
		19	15	19	36								
					TOTAL	50	26	1	5	0	0	0	0
JULY 6	1	8	31	8	39	9.5	0	0	1	0	0	0	0
		8	33	8	44								
	2	8	54	9	2	12	1	0	0	0	0	0	0
		8	56	9	12								
	3	19	31	19	42	14.5	14	0	3	0	0	0	0
		19	32	19	50								
	4	19	57	20	9	14	4	3	1	0	0	0	0
		19	59	20	15								
					TOTAL	50	19	3	5	0	0	0	0
JULY 7	1	10	25	10	35	12	8	0	0	0	0	0	0
		10	27	10	41								
	2	10	44	10	55	12.5	7	0	0	0	0	0	0
		10	46	11	0								
	3	20	33	20	45	17	20	1	0	0	0	0	0
		20	35	20	57								
	4	21	2	21	14	14	3	1	1	0	0	0	0
		21	4	21	20								
					TOTAL	55.5	38	2	1	0	0	0	0
JULY 8	1	11	2	11	13	17	22	1	1	0	0	0	0
		11	3	11	26								
	2	11	33	11	45	15	8	0	0	0	0	0	0
		11	35	11	53								
					TOTAL	32	30	1	1	0	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 10	1	12	18	12	30	15.5	12	3	4	1	0	0	1
		12	20	12	39								
	2	12	41	12	53	14.5	1	1	5	0	0	0	0
		12	43	13	0								
	3	22	53	23	5	17	8	1	3	1	0	0	0
		22	55	23	17								
	4	23	23	23	35	13.5	5	1	2	0	0	0	0
		23	25	23	40								
					TOTAL	60.5	26	6	14	2	0	0	1
JULY 11	1	12	42	12	54	17	24	2	4	4	0	0	0
		12	44	13	6								
	2	13	10	13	22	14	2	1	1	0	0	0	0
		13	12	13	28								
	3	23	25	23	36	16.5	15	2	3	2	0	0	0
		23	26	23	48								
					TOTAL	47.5	41	5	8	6	0	0	0
JULY 12	1	23	55	24	7	15	9	0	1	0	0	0	0
		23	57	24	15								
	2	13	30	13	42	16	20	0	0	5	0	0	0
		13	32	13	52								
	3	13	56	14	8	13.5	1	0	1	0	0	0	0
		13	58	14	13								
					TOTAL	44.5	30	0	2	5	0	0	0
JULY 13	1	0	16	0	28	17	20	2	2	4	0	0	0
		0	18	0	40								
	2	0	44	0	56	15.5	8	0	0	3	0	0	0
		0	46	1	5								
	3	14	14	14	26	14.5	9	1	0	6	0	0	0
		14	16	14	33								
	4	14	36	14	48	14.5	7	2	0	16	0	0	0
		14	38	14	55								
					TOTAL	61.5	44	5	2	29	0	0	0
JULY 14	1	14	37	14	48	16.5	35	1	0	17	0	0	0
		14	38	15	0								
	2	15	4	15	26	25	26	6	6	15	0	0	2
		15	16	15	44								
					TOTAL	41.5	61	7	6	32	0	0	2
JULY 15	1	2	59	3	10	14.5	4	0	4	8	0	0	0
		3	0	3	18								
	2	3	20	3	32	13.5	2	0	2	5	0	0	0
		3	22	3	37								
					TOTAL	28	6	0	6	13	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 17	1	16	53	17	5	18.5	10	2	1	44	2	0	0
		16	55	17	20								
	2	17	24	17	36	17	5	1	1	12	0	0	0
		17	26	17	48								
					TOTAL	35.5	15	3	2	56	2	0	0
JULY 18	1	5	46	5	58	16.5	17	0	4	33	0	0	2
		5	48	6	9								
	2	6	20	6	32	16.5	5	0	0	30	0	0	0
		6	22	6	43								
	3	17	5	17	17	23.5	52	1	3	45	1	0	0
		17	7	17	42								
	4	17	50	18	2	17.5	4	0	2	42	0	0	0
		17	52	18	15								
					TOTAL	74	78	1	9	150	1	0	2
JULY 19	1	7	43	7	55	31	34	1	1	128	0	0	0
		7	45	8	35								
	2	8	42	8	54	15.5	7	1	0	13	0	0	0
		8	44	9	3								
	3	17	56	18	7	22	30	0	1	74	0	0	0
		17	57	18	30								
	4	18	37	18	49	15.5	9	0	1	12	0	0	0
		18	39	18	58								
					TOTAL	84	80	2	3	227	0	0	0
JULY 20	1	8	59	9	11	24	25	0	1	57	0	0	0
		9	1	9	37								
	2	9	44	9	56	16.5	6	0	0	24	0	0	0
		9	46	10	7								
	3	19	18	19	30	19	19	1	1	37	1	0	0
		19	20	19	46								
	4	19	51	20	3	16	7	0	0	9	2	0	0
		19	53	20	13								
					TOTAL	75.5	57	1	2	127	3	0	0
JULY 21	1	9	46	9	58	16	16	0	1	9	0	0	0
		9	48	10	8								
	2	10	15	10	27	15.5	8	2	0	18	0	0	0
		10	17	10	36								
	3	20	25	20	37	16.5	15	0	0	22	1	0	0
		20	27	20	48								
	4	20	56	21	8	17	8	1	0	14	0	0	0
		20	58	21	20								
					TOTAL	65	47	3	1	63	1	0	0
JULY 22	1	10	31	10	42	20	3	0	0	51	0	0	0
		10	32	11	1								
	2	11	7	11	19	16	4	1	0	24	0	0	0
		11	9	11	29								
					TOTAL	36	7	1	0	75	0	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 24	1	12	30	12	42	26	2	1	1	146	1	0	0
		12	32	13	12								
	2	13	19	13	31	18.5	0	0	0	55	1	0	0
		13	21	13	46								
	3	23	28	23	40	21	3	0	0	54	2	0	0
		23	30	24	0								
					TOTAL	65.5	5	1	1	255	4	0	0
JULY 25	1	0	4	0	16	15.5	1	0	0	16	2	0	0
		0	6	0	25								
	2	13	13	13	26	26.5	2	0	0	121	3	0	0
		13	16	13	56								
	3	14	0	14	12	16	2	0	0	21	3	0	0
		14	2	14	22								
					TOTAL	58	5	0	0	158	8	0	0
JULY 26	1	0	18	0	30	18	6	0	0	31	2	0	0
		0	20	0	44								
	2	0	48	1	0	14	0	1	0	14	0	0	0
		0	50	1	6								
	3	13	27	13	39	26.5	5	0	0	142	6	0	0
		13	29	14	10								
	4	14	15	14	27	26	4	0	1	128	4	0	0
		14	17	14	57								
					TOTAL	84.5	15	1	1	315	12	0	0
JULY 27	1	0	43	0	55	16.5	3	0	0	40	0	0	0
		0	45	1	6								
	2	1	8	1	20	16	4	0	0	30	3	0	0
		1	10	1	30								
	3	13	24	13	35	25	12	0	0	167	1	0	0
		13	25	14	4								
	4	14	10	14	22	17	4	0	0	41	0	0	0
		14	12	14	34								
					TOTAL	74.5	23	0	0	278	4	0	0
JULY 28	1	1	15	1	27	15.5	2	0	0	21	1	0	0
		1	17	1	36								
	2	1	40	1	52	15.5	1	0	0	12	0	0	0
		1	42	2	1								
	3	13	51	14	3	22.5	22	1	1	55	5	0	0
		13	53	14	26								
	4	14	29	14	41	21	0	0	0	60	0	0	0
		14	31	15	1								
					TOTAL	74.5	25	1	1	148	6	0	0

APPENDIX 4. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 29	1	1	37	1	49	16.5	8	0	0	17	1	0	0
		1	39	2	0								
	2	2	4	2	16	14.5	5	0	1	15	0	0	0
		2	6	2	23								
	3	14	13	14	25	23	12	1	1	92	5	0	1
		14	15	14	49								
	4	14	53	15	5	18.5	3	0	0	71	3	0	1
		14	55	15	20								
					TOTAL	72.5	28	1	2	195	9	0	2
JULY 30	1	14	29	14	41	19	4	0	0	45	5	0	0
		14	31	14	57								
	2	15	3	15	15	19.5	6	1	0	66	9	0	2
		15	5	15	32								
					TOTAL	38.5	10	1	0	111	14	0	2
JULY 31	1	2	44	2	56	24.5	2	0	0	66	1	0	0
		2	46	3	23								
	2	3	25	3	37	15	0	0	0	20	0	0	0
		3	27	3	45								
					TOTAL	39.5	2	0	0	86	1	0	0

APPENDIX 5. Daily catch information for the Nass test fishery, 1988.

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 6	1	4	42	4	53	12.5	0	0	0	0	0	0	0
		4	43	4	57								
	2	5	2	5	14	13	0	0	0	0	0	0	0
		5	4	5	18								
	3	16	43	16	55	13.5	0	5	0	0	0	0	0
		16	45	17	0								
	4	17	3	17	15	13.5	0	4	0	0	0	0	0
		17	5	17	20								
					TOTAL	52.5	0	9	0	0	0	0	0
JUNE 7	1	5	45	5	57	13	0	4	0	0	0	0	0
		5	47	6	1								
	2	6	4	6	16	13	0	0	0	0	0	0	1
		6	6	6	20								
	3	17	37	17	49	14	0	0	1	0	0	0	0
		17	39	17	55								
	4	18	0	18	12	13.5	0	0	0	0	0	0	0
		18	2	18	17								
					TOTAL	53.5	0	4	1	0	0	0	1
JUNE 8	1	6	59	7	11	16.5	0	1	0	0	0	0	0
		7	1	7	22								
	2	7	27	7	39	14	0	0	0	0	0	0	1
		7	29	7	45								
	3	18	58	19	10	17	0	0	0	0	0	0	0
		19	0	19	22								
	4	19	27	19	39	14.5	0	1	0	0	0	0	0
		19	29	19	46								
					TOTAL	62	0	2	0	0	0	0	1
JUNE 9	1	7	50	8	2	14	0	1	0	0	0	0	0
		7	52	8	8								
	2	8	14	8	26	14	0	0	0	0	0	0	0
		8	16	8	32								
	3	19	29	19	40	12.5	1	2	0	0	0	0	0
		19	30	19	44								
	4	19	51	20	3	13	0	1	0	0	0	0	0
		19	53	20	7								
					TOTAL	53.5	1	4	0	0	0	0	0
JUNE 10	1	9	0	9	12	13.5	2	1	0	0	0	0	0
		9	2	9	17								
	2	9	22	9	34	13	0	0	0	0	0	0	0
		9	24	9	38								
	3	20	15	20	27	13.5	1	1	1	0	0	0	0
		20	17	20	32								
	4	20	38	20	50	13	0	0	0	0	0	0	0
		20	40	20	54								
					TOTAL	53	3	2	1	0	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 11	1	10	33	10	45	13	0	1	0	0	0	0	0
		10	35	10	49								
	2	10	55	11	7	13	0	2	0	0	0	0	0
		10	57	11	11								
	3	21	22	21	34	13.5	3	0	0	0	0	0	0
		21	24	21	39								
	4	21	43	21	55	13	0	1	0	0	0	0	0
		21	45	21	59								
					TOTAL	52.5	3	4	0	0	0	0	0
JUNE 12	1	11	39	11	51	13.5	2	1	0	0	0	0	0
		11	41	11	56								
	2	11	59	12	11	13	0	2	0	0	0	0	0
		12	1	12	15								
	3	21	58	22	10	13.5	2	4	0	0	0	0	0
		22	0	22	15								
	4	22	20	22	32	13.5	3	0	0	0	0	0	0
		22	22	22	37								
					TOTAL	53.5	7	7	0	0	0	0	0
JUNE 13	1	12	1	12	13	13.5	2	4	0	0	0	0	0
		12	3	12	18								
	2	12	23	12	35	13.5	3	2	0	0	0	0	0
		12	25	12	40								
	3	22	48	23	0	14	5	4	0	0	0	0	0
		22	50	23	6								
	4	23	10	23	22	13	0	3	0	0	0	0	0
		23	12	23	26								
					TOTAL	54	10	13	0	0	0	0	0
JUNE 14	1	12	38	12	50	13	2	2	0	0	0	0	0
		12	40	12	54								
	2	12	59	13	11	13.5	4	2	0	0	0	0	0
		13	1	13	16								
	3	23	31	23	42	17	12	3	4	0	0	0	0
		23	32	23	55								
	4	24	0	24	12	13.5	2	0	0	0	0	0	1
		24	2	24	17								
					TOTAL	57	20	7	4	0	0	0	1
JUNE 15	1	13	14	13	26	15	3	0	0	0	0	0	0
		13	16	13	34								
	2	13	40	13	52	14.5	6	0	0	0	0	0	0
		13	42	13	59								
	3					0							
	4					0							
					TOTAL	29.5	9	0	0	0	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 16	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JUNE 17	1					0							
	2					0							
	3	15	20	15	32	14	1	1	1	0	0	0	0
		15	22	15	38								
	4	15	42	15	54	14.5	2	1	0	0	0	0	0
		15	44	16	1								
					TOTAL	28.5	3	2	1	0	0	0	0
JUNE 18	1	2	25	2	37	13.5	2	0	0	0	0	0	0
		2	27	2	42								
	2	2	48	3	0	13	5	0	0	0	0	0	0
		2	50	3	4								
	3	15	28	15	40	13.5	1	2	0	0	0	0	0
		15	30	15	45								
	4	15	50	16	2	15	5	1	3	0	0	0	0
		15	52	16	10								
					TOTAL	55	13	3	3	0	0	0	0
JUNE 19	1	3	30	3	42	13	0	3	1	0	0	0	1
		3	32	3	46								
	2	3	53	4	5	14	2	1	0	0	0	0	0
		3	55	4	11								
	3	16	41	16	53	15.5	6	2	0	0	0	0	0
		16	43	17	2								
	4	17	10	17	22	13.5	0	0	0	0	0	0	0
		17	12	17	27								
					TOTAL	56	8	6	1	0	0	0	1
JUNE 20	1	4	51	5	2	16.5	15	5	1	0	0	0	0
		4	52	5	14								
	2	5	23	5	35	12.5	2	0	0	0	0	0	0
		5	25	5	38								
	3	17	20	17	32	16.5	16	1	2	0	0	0	0
		17	22	17	43								
	4	17	48	18	0	17	8	2	1	0	0	0	1
		17	50	18	12								
					TOTAL	62.5	41	8	4	0	0	0	1

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 21	1	5	35	5	47	18.5	16	4	2	0	0	0	0
		5	37	6	2								
	2	6	10	6	22	21	12	7	0	0	0	0	0
		6	12	6	42								
	3	17	8	17	20	18.5	20	11	1	0	0	0	0
		17	10	17	35								
	4	17	43	17	55	14.5	4	4		0	0	0	0
		17	45	18	2								
					TOTAL	72.5	52	26	4	0	0	0	0
JUNE 22	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JUNE 23	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JUNE 24	1					0							
	2					0							
	3	19	36	19	48	16	14	3	0	0	0	0	0
		19	38	19	58								
	4	20	2	20	14	15	7	3	0	0	0	0	0
		20	4	20	22								
					TOTAL	31	21	6	0	0	0	0	0
JUNE 25	1	9	13	9	25	16	17	2	0	0	0	0	0
		9	15	9	35								
	2	9	41	9	52	13	4	2	0	0	0	0	0
		9	42	9	57								
	3	20	21	20	33	14	6	0	1	0	0	0	0
		20	23	20	39								
	4	20	43	20	55	12.5	1	0	0	0	0	0	0
		20	45	20	58								
					TOTAL	55.5	28	4	1	0	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JUNE 26	1	9	40	9	52	14.5	20	1	1	0	0	0	0
		9	42	9	59								
	2	10	8	10	20	14	6	1	0	0	0	0	0
		10	10	10	26								
	3	20	44	20	56	15	9	1	1	0	0	0	0
		20	46	21	4								
	4	21	7	21	19	14.5	4	3	0	0	0	0	0
		21	9	21	26								
					TOTAL	58	39	6	2	0	0	0	0
JUNE 27	1	10	43	10	55	18.5	29	1	1	0	0	0	0
		10	45	11	10								
	2	11	14	11	26	13	7	1	0	0	0	0	0
		11	16	11	30								
	3	20	50	21	2	17	29	3	1	0	0	0	0
		20	52	21	14								
	4	21	21	21	33	16	13	1	0	0	0	0	0
		21	23	21	43								
					TOTAL	64.5	78	6	2	0	0	0	0
JUNE 28	1	11	27	11	39	19.5	37	0	1	0	0	0	0
		11	29	11	56								
	2	12	0	12	12	15	12	1	1	0	0	0	0
		12	2	12	20								
	3	21	23	21	34	16	28	2	1	0	0	0	0
		21	24	21	45								
	4	21	52	22	4	20	26	3	1	0	0	0	0
		21	54	22	22								
					TOTAL	70.5	103	6	4	0	0	0	0
JUNE 29	1	12	4	12	16	14.5	12	0	0	0	0	0	0
		12	6	12	23								
	2	12	26	12	38	13	5	1	0	0	0	0	0
		12	28	12	42								
	3					0							
	4					0							
					TOTAL	27.5	17	1	0	0	0	0	0
JUNE 30	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 1	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JULY 2	1	0	3	0	15	13.5	1	1	0	0	0	0	0
		0	5	0	20								
	2	0	25	0	37	14.5	4	1	1	0	0	0	0
		0	27	0	44								
	3	14	3	14	15	15	10	1	0	0	0	0	0
		14	5	14	23								
	4	14	27	14	39	13.5	1	0	1	0	0	0	0
		14	29	14	44								
					TOTAL	56.5	16	3	2	0	0	0	0
JULY 3	1	1	0	1	11	15	30	2	0	0	0	0	1
		1	1	1	20								
	2	1	26	1	38	14	5	1	0	0	0	0	0
		1	28	1	44								
	3	14	32	14	44	14.5	10	3	1	0	0	0	0
		14	34	14	51								
	4	14	55	15	7	14	5	2	1	0	0	0	0
		14	57	15	13								
					TOTAL	57.5	50	8	2	0	0	0	1
JULY 4	1	2	4	2	16	13	6	1	0	0	0	0	0
		2	6	2	20								
	2	2	25	2	37	14.5	14	2	0	0	0	0	0
		2	27	2	44								
	3	15	21	15	33	14.5	11	1	0	0	0	0	0
		15	23	15	40								
	4	15	42	15	54	14.5	4	2	1	0	0	0	0
		15	44	16	1								
					TOTAL	56.5	35	6	1	0	0	0	0
JULY 5	1	3	14	3	25	15.5	12	0	0	0	0	0	0
		3	15	3	35								
	2	3	39	3	51	14.5	8	0	0	0	0	0	1
		3	41	3	58								
	3	16	4	16	15	13.5	11	2	3	0	0	0	0
		16	5	16	21								
	4	16	24	16	36	12.5	1	0	0	0	0	0	0
		16	26	16	39								
					TOTAL	56	32	2	3	0	0	0	1

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 6	1	4	38	4	49	14	7	0	0	0	0	0	0
		4	39	4	56								
	2	4	59	5	11	14	3	1	5	0	0	0	0
		5	1	5	17								
	3					0							
	4					0							
					TOTAL	28	10	1	5	0	0	0	0
JULY 7	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JULY 8	1					0							
	2					0							
	3	18	49	19	1	16.5	34	3	0	0	0	0	0
		18	51	19	12								
	4	19	19	19	31	13	4	0	0	0	0	0	0
		19	21	19	35								
					TOTAL	29.5	38	3	0	0	0	0	0
JULY 9	1	8	48	9	0	15.5	12	1	0	0	0	0	0
		8	50	9	9								
	2	9	14	9	26	15.5	16	1	0	0	0	0	0
		9	16	9	35								
	3	19	48	20	0	20.5	44	1	0	0	0	0	0
		19	50	20	19								
	4	20	22	20	34	14.5	11	0	1	0	0	0	0
		20	24	20	41								
					TOTAL	66	83	3	1	0	0	0	0
JULY 10	1	9	57	10	9	22	45	0	1	0	0	0	0
		9	59	10	31								
	2	10	36	10	48	16	22	0	1	0	0	0	0
		10	38	10	58								
	3	20	50	21	2	19	30	0	1	0	0	0	0
		20	52	21	18								
	4	21	20	21	32	15.5	6	1	0	0	0	0	0
		21	22	21	41								
					TOTAL	72.5	103	1	3	0	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 11	1	10	53	11	5	19	23	2	0	1	0	0	1
		10	55	11	21								
	2	11	23	11	35	16.5	14	1	0	2	0	0	0
		11	25	11	46								
	3	21	40	21	51	16	12	0	0	1	0	0	0
		21	41	22	2								
	4	22	6	22	18	14.5	10	0	0	1	0	0	0
		22	8	22	25								
					TOTAL	66	59	3	0	5	0	0	1
JULY 12	1	11	28	11	40	16	15	1	0	0	0	0	0
		11	30	11	50								
	2	11	54	12	6	15	8	0	0	0	0	0	0
		11	56	12	14								
	3	22	7	22	19	14	7	0	0	0	0	0	0
		22	9	22	25								
	4	22	29	22	41	15	6	1	0	2	0	0	0
		22	31	22	49								
					TOTAL	60	36	2	0	2	0	0	0
JULY 13	1	12	4	12	16	16	9	1	1	1	0	0	0
		12	6	12	26								
	2	12	29	12	41	14	4	1	1	0	0	0	0
		12	31	12	47								
	3					0							
	4					0							
					TOTAL	30	13	2	2	1	0	0	0
JULY 14	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JULY 15	1					0							
	2					0							
	3	13	24	13	36	13.5	6	0	0	0	0	0	0
		13	26	13	41								
	4	13	44	13	56	13.5	5	0	0	3	0	0	0
		13	46	14	1								
					TOTAL	27	11	0	0	3	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 16	1	0	16	0	28	13	7	2	1	3	0	0	0
		0	18	0	32								
	2	0	40	0	52	15.5	10	0	0	0	0	0	0
		0	42	1	1								
	3	13	48	14	0	15.5	10	0	0	2	0	0	0
		13	50	14	9								
	4	14	11	14	23	13.5	3	0	0	0	0	0	0
		14	13	14	28								
					TOTAL	57.5	30	2	1	5	0	0	0
JULY 17	1					0							
	2					0							
	3	14	24	14	35	14	8	0	0	0	0	0	0
		14	25	14	42								
	4	14	45	14	57	15.5	12	2	1	0	0	0	0
		14	47	15	6								
					TOTAL	29.5	20	2	1	0	0	0	0
JULY 18	1	1	43	1	55	17.5	20	1	0	0	0	0	2
		1	45	2	8								
	2	2	11	2	23	15	9	2	0	3	0	0	0
		2	13	2	31								
	3	14	51	15	3	14	9	2	0	1	0	0	0
		14	53	15	9								
	4	15	12	15	24	13	7	0	0	0	0	0	0
		15	14	15	28								
					TOTAL	59.5	45	5	0	4	0	0	2
JULY 19	1	2	26	2	38	16.5	16	2	0	2	0	0	0
		2	28	2	49								
	2	2	54	3	6	13.5	5	1	0	0	0	0	0
		2	56	3	11								
	3	15	11	15	22	16	14	2	0	0	0	0	1
		15	12	15	33								
	4	15	36	15	48	14.5	0	1	0	0	0	0	0
		15	38	15	55								
					TOTAL	60.5	35	6	0	2	0	0	1
JULY 20	1	3	31	3	42	14.5	7	0	0	2	0	0	0
		3	32	3	50								
	2	3	55	4	7	14.5	1	0	0	1	0	0	0
		3	57	4	14								
	3					0							
	4					0							
					TOTAL	29	8	0	0	3	0	0	0

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 21	1					0							
	2					0							
	3					0							
	4					0							
					TOTAL	0	0	0	0	0	0	0	0
JULY 22	1					0							
	2					0							
	3	17	18	17	30	15	1	2	0	3	0	0	0
		17	20	17	38								
	4	17	42	17	54	16.5	7	0	1	2	0	0	0
		17	44	18	5								
					TOTAL	31.5	8	2	1	5	0	0	0
JULY 23	1	7	22	7	34	13	1	0	0	1	0	0	0
		7	24	7	38								
	2	7	42	7	54	13	2	0	0	0	0	0	0
		7	44	7	58								
	3	17	45	17	57	15	4	1	0	1	0	0	0
		17	47	18	5								
	4	18	10	18	22	14	1	0	0	0	0	0	0
		18	12	18	28								
					TOTAL	55	8	1	0	2	0	0	0
JULY 24	1	8	47	8	59	13	3	1	0	0	1	0	0
		8	49	9	3								
	2	9	10	9	22	13.5	3	1	0	0	1	0	0
		9	12	9	27								
	3	18	45	18	57	14.5	4	0	0	1	0	1	0
		18	47	19	4								
	4	19	9	19	21	15	4	0	1	1	0	0	0
		19	11	19	29								
					TOTAL	56	14	2	1	2	2	1	0
JULY 25	1	9	48	10	0	13	2	0	1	1	1	0	0
		9	50	10	4								
	2	10	10	10	22	13	4	0	0	0	0	0	0
		10	12	10	26								
	3	20	12	20	24	12	17	0	1	1	9	0	1
		20	14	20	26								
	4	20	39	20	51	15	8	0	0	0	0	0	0
		20	41	20	59								
					TOTAL	53	31	0	2	2	10	0	1

APPENDIX 5. Continued

DATE	SET #	SET TIME HOURS	SET TIME MIN	PICK TIME HOURS	PICK TIME MIN	ACTUAL FISHING TIME	CATCH IN PIECES SOCKEYE	LG. CHINOOK	JK. CHINOOK	PINKS	COHO	CHUM	STHD
JULY 26	1	11	7	11	19	18	1	0	0	1	0	0	0
		11	9	11	33								
	2	11	43	11	55	31	3	0	0	2	0	0	0
		11	45	12	35								
	3	21	27	21	39	14.5	9	0	1	1	3	0	0
		21	29	21	46								
	4	21	52	22	4	14	6	0	0	0	0	0	0
		21	54	22	10								
					TOTAL	77.5	19	0	1	4	3	0	0
JULY 27	1	12	11	12	23	13.5	0	0	0	0	0	0	0
		12	13	12	28								
	2					0							
	3	22	5	22	16	14	1	1	1	2	0	0	0
		22	6	22	23								
	4	22	29	22	41	13.5	0	0	0	2	0	0	0
		22	31	22	46								
					TOTAL	41	1	1	1	4	0	0	0
JULY 28	1	12	8	12	20	14.5	2	0	0	3	1	0	0
		12	10	12	27								
	2	12	31	12	43	14	1	0	1	2	1	0	1
		12	33	12	49								
	3	23	0	23	12	16.5	7	1	1	4	1	0	0
		23	2	23	23								
	4	23	26	23	38	13.5	3	0	0	1	0	0	0
		23	28	23	43								
					TOTAL	58.5	13	1	2	10	3	0	1
JULY 29	1	13	48	14	0	16	5	0	0	3	11	0	0
		13	50	14	10								
	2	14	14	14	26	14	2	0	0	2	5	0	0
		14	16	14	32								
	3					0							
	4					0							
					TOTAL	30	7	0	0	5	16	0	0

APPENDIX 6. Daily index calculation of sockeye and chinook at the Nass test fishery, 1987.

		DAILY		CUMULATIVE	
		SOCKEYE	LG. CHINOOK	SOCKEYE	LG. CHINOOK
June	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.38	0.00	0.38
	4	0.51	0.19	0.51	0.57
	5	0.34	0.00	0.85	0.57
	6	0.17	0.52	1.02	1.09
	7	0.38	0.57	1.40	1.66
	8	0.38	0.19	1.78	1.85
	9	0.16	0.16	1.94	2.01
	10	0.00	0.00	1.94	2.01
	11	0.21	0.35	2.15	2.36
	12	0.42	0.70	2.57	3.06
	13	0.63	1.05	3.20	4.11
	14	0.84	1.40	4.04	5.51
	15	1.05	1.75	5.09	7.26
	16	4.80	2.40	9.89	9.66
	17	3.24	5.74	13.13	15.40
	18	3.68	3.04	16.81	18.44
	19	5.16	1.45	21.97	19.89
	20	6.24	2.08	28.21	21.97
	21	3.93	0.82	32.14	22.79
	22	4.12	0.41	36.26	23.20
	23	4.30	0.00	40.56	23.20
	24	5.00	1.33	45.56	24.53
	25	5.89	0.84	51.45	25.37
	26	6.78	0.34	58.23	25.71
	27	4.52	0.70	62.75	26.41
	28	3.89	0.71	66.64	27.12
	29	4.39	0.65	71.03	27.77
	30	5.16	0.16	76.19	27.93
July	1	4.49	0.12	80.68	28.05
	2	3.82	0.08	84.50	28.13
	3	3.15	0.04	87.65	28.17
	4	2.50	0.00	90.15	28.17
	5	5.20	0.20	95.35	28.37
	6	3.80	0.60	99.15	28.97
	7	6.85	0.36	106.00	29.33
	8	9.38	0.31	115.38	29.64
	9	6.84	0.65	122.22	30.29
	10	4.30	0.99	126.52	31.28
	11	8.63	1.05	135.15	32.33
	12	6.74	0.00	141.89	32.33
	13	7.15	0.81	149.04	33.14
	14	14.70	1.69	163.74	34.83
	15	2.14	0.00	165.88	34.83
	16	3.19	0.43	169.07	35.26
	17	4.23	0.85	173.30	36.11
	18	10.54	0.14	183.84	36.25
	19	9.52	0.24	193.36	36.49
	20	7.55	0.13	200.91	36.62
	21	7.23	0.46	208.14	37.08
	22	1.94	0.28	210.08	37.36
	23	1.35	0.22	211.43	37.58
	24	0.76	0.15	212.19	37.73
	25	0.86	0.00	213.05	37.73
	26	1.78	0.12	214.83	37.85
	27	3.09	0.00	217.92	37.85
	28	3.36	0.13	221.28	37.98
	29	3.86	0.14	225.14	38.12
	30	2.60	0.26	227.74	38.38
	31	0.51	0.00	228.25	38.38

APPENDIX 7. Daily index calculation of sockeye and chinook at the Nass test fishery, 1988

	DAILY		CUMULATIVE	
	SOCKEYE	LG. CHINOOK	SOCKEYE	LG. CHINOOK
June 1				
2				
3				
4				
5				
6	0.00	1.71	0.00	1.71
7	0.00	0.75	0.00	2.46
8	0.00	0.32	0.00	2.78
9	0.19	0.75	0.19	3.53
10	0.57	0.38	0.76	3.91
11	0.57	0.76	1.33	4.67
12	1.31	1.31	2.64	5.98
13	1.85	2.41	4.49	8.39
14	3.51	1.23	8.00	9.62
15	3.05	0.00	11.05	9.62
16	2.05	0.35	13.10	9.97
17	1.05	0.70	14.15	10.67
18	2.36	0.55	16.51	11.22
19	1.43	1.07	17.94	12.29
20	6.56	1.28	24.50	13.57
21	7.17	3.59	31.67	17.16
22	7.04	3.04	38.71	20.20
23	6.91	2.49	45.62	22.69
24	6.77	1.94	52.39	24.63
25	5.05	0.72	57.44	25.35
26	6.72	1.03	64.16	26.38
27	12.09	0.93	76.25	27.31
28	14.61	0.85	90.86	28.16
29	6.18	0.36	97.04	28.52
30	5.06	0.42	102.10	28.94

	DAILY		CUMULATIVE	
	SOCKEYE	LG. CHINOOK	SOCKEYE	LG. CHINOOK
July 1	3.94	0.48	106.04	29.42
2	2.83	0.53	108.87	29.95
3	8.70	1.39	117.57	31.34
4	6.19	1.06	123.76	32.40
5	5.71	0.36	129.47	32.76
6	3.57	0.36	133.04	33.12
7	8.23	0.69	141.27	33.81
8	12.88	1.02	154.15	34.83
9	12.58	0.45	166.73	35.28
10	14.21	0.14	180.94	35.42
11	8.94	0.45	189.88	35.87
12	6.00	0.33	195.88	36.20
13	4.33	0.67	200.21	36.87
14	4.20	0.34	204.41	37.21
15	4.07	0.00	208.48	37.21
16	5.22	0.35	213.70	37.56
17	6.78	0.68	220.48	38.24
18	7.56	0.84	228.04	39.08
19	5.79	0.99	233.83	40.07
20	2.76	0.00	236.59	40.07
21	2.65	0.32	239.24	40.39
22	2.54	0.63	241.78	41.02
23	1.45	0.18	243.23	41.20
24	2.50	0.36	245.73	41.56
25	5.85	0.00	251.58	41.56
26	2.45	0.00	254.03	41.56
27	0.24	0.24	254.27	41.80
28	2.22	0.17	256.49	41.97
29	2.33	0.00	258.82	41.97
30				
31				

APPENDIX 8. 1987 Nass gillnet test fishery sockeye age, sex and length data.

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 6	511	647	M	4_1	
June 9	517	646	M	W^1	
9	490	617	M	4_1	
9	507	617	F	5_1	
June 15	477	599	F	R^2	
15	495	608	F	W	
15	491	603	M	4_1	
June 16	500	621	F	5_1	
16	493	597	F	NP^3	
16	491	613	M	R	
16	546	701	M	R	
16	473	601	M	R	
16	498	634	M	R	
16	497	602	F	R	
16	477	606	F	R	
16	526	651	F	R	
16	444	561	F	3_1	
16	468	585	F	4_1	
16	480	586	F	4_1	
16	466	583	F	4_1	
16	491	611	M	4_1	
16	510	627	F	4_1	
16	537	649	F	5_1	
16	454	582	F	5_2	
16	496	620	M	5_2	
16	532	658	F	5_2	
16	542	681	M	5_2	
16	453	569	F	5_2	
16	507	653	M	5_2	
16	509	617	F	5_2	
16	527	648	M	5_2	
16	558	683	M	5_2	
16	500	621	F	5_2	13+13
16	478	596	F	5_3	
16	518	634	F	6_3	10+12
June 17	500	606	F	NP^3	
17	480	604	M	R	
17	510	637	F	R	
17	480	594	F	R	
17	504	621	M	W	
17	484	593	F	4_1	
17	497	617	M	4_1	
17	496	600	F	4_1	
17	523	648	F	5_2	
17	539	659	F	5_2	
17	462	587	F	5_2	
17	504	619	F	5_2	
17	517	641	M	5_2	
17	506	627	F	5_2	8+13
17	494	611	F	5_3	12+12
17	465	581	F	5_3	9+15
17	467	578	F	5_3	9+17
17	464	576	F	W^3	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 17	454	562	F	4_1	
17	521	640	M	5_2	
June 18	531	654	M	NP	
18	478	601	F	NP	
18	486	608	F	NP	
18	503	618	F	R	
18	436	542	F	R	
18	479	584	F	R	
18	468	582	F	R	
18	561	691	M	R	
18	475	584	F	R	
18	472	537	F	R	
18	521	640	F	R	
18	508	638	M	W	
18	467	574	F	4_1	
18	520	658	M	4_1	
18	460	576	F	4_1	
18	530	640	F	5_2	
18	515	639	M	5_2	
18	564	697	M	5_2	
18	471	575	F	5_2	13+13
18	488	607	M	5_3	10+10
June 19	357	445	F	R_3	
19	372	461	F	R	
19	503	624	M	R	
19	490	617	F	R	
19	543	656	F	R	
19	548	670	F	R	
19	481	588	F	R	
19	517	625	F	R	
19	435	548	M	R	
19	478	580	F	R	
19	484	610	F	R	
19	539	652	F	R	
19	548	678	M	W	
19	478	595	F	4_1	
19	500	625	M	4_1	
19	457	568	F	4_1	
19	475	597	F	4_1	
19	408	505	F	4_2	
19	537	653	M	5_2	
19	463	576	F	5_2	
19	543	663	F	5_2	
19	488	593	M	5_2	
19	492	600	F	5_2	11+16
19	441	552	F	5_3	8+17
19	493	616	F	5_3	8+18
19	537	663	M	5_3	13+14
19	538	667	F	6_3	11+13
19	460	574	F	R_3	
19	501	638	M	5_2	
19	491	588	F	5_2	10+16
June 20	473	586	F	NP	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 20	482	587	F	NP	
20	494	623	F	R	
20	483	602	F	R	
20	500	620	F	R	
20	460	572	M	R	
20	497	613	F	R	
20	507	634	M	R	
20	468	561	F	R	
20	486	593	F	R	
20	413	503	M	R	
20	551	674	M	W	
20	498	609	F	3_1	
20	502	618	F	4_1^1	
20	484	596	F	4_1^1	
20	461	562	F	4_1^1	
20	456	571	F	4_1^1	
20	479	584	M	5_1^1	
20	468	574	F	5_2^2	
20	493	617	F	5_2^2	
20	514	625	F	5_2^2	
20	524	642	F	5_2^2	
20	531	650	M	5_2^2	
20	483	614	F	5_2^2	
20	504	629	M	5_2^2	
20	502	608	M	5_2^2	14+16
20	537	665	F	5_3^3	11+14
20	464	566	M	5_3^3	10+18
20	532	659	F	5_3^3	8+17
20	506	698	M	5_3^3	10+14
20	489	597	M	5_3^3	11+13
20	526	642	F	5_3^3	13+13
20	519	640	F	5_3^3	12+17
20	525	642	F	6_3^3	9+16
20	513	632	F	6_3^3	10+11
20	520	640	F	6_3^3	9+12
20	565	690	M	6_3^3	10+15
20	572	704	F	6_3^3	9+14
June 21	517	629	M	R^3	
21	496	611	F	4_1	
21	434	529	F	4_1^2	
21	483	596	M	5_2^2	
21	500	608	M	5_2^3	
21	472	584	F	5_3^3	9+15
21	497	603	F	5_3^3	10+16
21	529	642	F	5_3^3	13+16
21	498	606	F	5_3^3	10+12
21	474	587	M	R^3	
21	475	585	F	R	
21	488	628	F	W	
21	463	565	F	4_2	
21	504	639	F	5_2^2	
21	523	638	F	5_2^2	
21	454	558	F	5_3^2	11+15

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 21	482	592	F	5_3	10+12
21	505	609	M	5_3	11+15
21	532	649	M	6_3	
21	521	649	F	6_3	
June 22	518	650	M	R^3	
22	510	632	F	5_3	10+15
22	493	614	M	5_3	13+14
June 23	527	652	M	NP	
23	534	672	F	NP	
23	465	568	F	R	
23	514	652	F	R	
23	468	571	F	R	
23	458	564	F	R	
23	481	588	F	4_1	
23	506	630	F	4_1	
23	492	604	M	4_1	
23	470	568	M	4_1	
23	452	611	M	5_2	
23	518	637	F	5_2	
23	541	654	F	5_2	
23	546	661	F	5_2	
23	505	623	F	5_2	
23	500	604	F	5_2	
23	538	663	F	5_2	
23	518	649	F	5_2	
23	561	699	F	5_2	
23	497	608	F	5_2	13+14
23	489	590	F	5_3	9+16
23	455	609	M	5_3	9+15
23	488	594	F	5_3	9+19
23	463	572	F	5_3	11+17
23	512	627	F	5_3	9+13
23	506	609	M	6_3	
June 24	533	652	F		
24	522	628	F	R	
24	477	584	F	R	
24	376	474	M	R	
24	508	622	F	R	
24	515	641	M	W	
24	502	604	F	3_1	
24	482	594	F	4_1	
24	412	512	M	4_1	
24	486	596	F	5_1	
24	472	576	F	5_2	
24	520	670	M	5_2	8+13
June 26	500	618	M	NP	
26	510	626	F	NP	
26	482	591	F	R	
26	496	612	F	R	
26	533	643	M	W	
26	484	594	F	4_1	
26	500	623	M	4_1	
26	455	562	F	4_1	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 26	492	600	F	4_1	
26	556	688	M	5^1_1	
26	572	688	M	5^2_1	
26	509	636	F	5^2_1	
26	524	638	F	5^2_1	10+17
26	487	587	M	5^3_1	10+22
26	514	626	M	5^3_1	10+16
26	479	581	F	5^3_1	8+16
26	484	592	F	5^3_1	9+16
26	501	618	M	5^3_1	12+15
26	496	612	F	5^3_1	13+17
26	538	672	M	6^3_1	
June 27	497	623	M	R^3_1	
27	434	538	F	R	
27	502	628	F	R	
27	501	630	F	4_1	
27	457	569	F	4^1_1	
27	476	585	F	4^1_1	
27	468	583	M	4^1_1	
27	478	587	F	4^2_1	
27	527	648	F	5^2_1	
27	555	668	F	5^2_1	
27	536	664	M	5^2_1	
27	546	667	F	5^2_1	
27	505	631	F	5^2_1	
27	493	610	M	5^2_1	9+15
27	453	558	F	5^3_1	12+14
27	505	621	F	5^3_1	12+17
27	453	561	F	5^3_1	9+13
27	482	593	M	5^3_1	12+14
27	492	601	F	5^3_1	11+19
27	488	602	M	5^3_1	9+14
27	470	583	F	5^3_1	12+13
27	481	593	F	5^3_1	15+12
27	482	600	F	5^3_1	11+14
27	464	572	F	5^3_1	9+13
27	497	618	F	6^3_1	
June 28	480	610	M	4^1_1	
28	453	564	F	5^1_1	10+14
28	460	563	F	5^3_1	11+13
28	533	656	F	6^3_1	
28	549	679	M	6^3_1	
28	476	580	F	R^3_1	
28	500	618	F	4_1	
28	526	642	M	4^1_1	
28	476	582	M	4^1_1	
28	471	681	F	4^2_1	
28	517	633	M	5^2_1	
28	545	667	M	5^2_1	
28	547	675	M	5^2_1	
28	492	610	M	5^2_1	11+18
28	494	619	M	5^3_1	11+15
28	506	617	M	5^3_1	11+15

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 28	486	607	F	5_3	9+17
28	507	619	F	5_3	11+18
28	482	598	F	5_3	11+17
28	456	548	F	5_3	8+14
28	466	557	F	5_3	10+19
June 29	487	596	F	R^3	
29	535	674	M	W	
29	438	537	F	3_1	
29	465	574	F	4_1	
29	474	592	F	4_1	
29	463	567	F	4_1	
29	478	577	M	4_1	
29	440	536	F	4_2	
29	487	602	M	4_2	
29	494	606	M	4_2	
29	537	671	M	5_2	
29	520	630	F	5_2	
29	530	648	F	5_2	
29	515	632	F	5_2	
29	503	619	M	5_2	
29	517	630	F	5_2	
29	500	614	M	5_3	11+17
29	526	644	M	5_3	10+17
29	517	626	M	5_3	14+14
29	498	606	F	5_3	10+15
29	488	593	M	5_3	9+19
29	480	587	F	5_3	11+14
29	495	596	F	5_3	7+17
29	490	590	F	5_3	8+13
29	515	618	M	5_3	10+20
29	529	638	M	6_3	7+14
June 30	458	579	F	4_1	11+15
30	481	586	F	4_2	
30	505	614	F	5_2	
30	476	593	F	5_3	11+13
30	493	612	M	5_3	13+13
30	486	596	M	5_3	11+15
30	476	586	F	5_3	10+18
30	476	592	M	5_3	10+17
30	523	647	F	R^3	
30	563	693	M	W	
30	477	581	F	4_1	
30	518	663	M	4_1	
30	485	604	F	4_1	
30	463	568	F	4_2	
30	490	599	M	4_2	
30	480	595	F	4_2	
30	514	638	M	5_2	
30	517	628	M	5_2	
30	517	637	F	5_2	
30	505	622	F	5_2	
30	488	584	M	5_2	11+16
30	514	632	F	5_3	8+17

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 30	500	623	M	5_3	9+17
30	492	597	F	5_3	14+14
30	496	608	F	5_3	13+15
30	505	616	F	5_3	8+13
30	507	623	F	5_3	11+13
30	518	634	M	5_3	11+13
30	475	582	F	5_3	12+16
30	520	647	M	6_3	
30	525	638	F	6_3	
July 1	545	688	M	5_3	
July 4	453	656	F	4_2	
4	439	529	F	4_2	
4	528	647	F	5_2	
4	553	686	M	5_2	
4	522	622	F	5_2	
4	484	585	F	5_2	12+14
4	511	631	M	5_3	10+17
4	507	618	F	5_3	15+17
4	496	601	M	5_3	9+11
July 5	493	607	F	R_3	
5	510	623	F	R	
5	452	557	F	4_2	
5	473	580	M	4_2	
5	506	614	M	4_2	
5	478	586	M	4_2	
5	430	543	M	4_2	
5	482	594	M	4_2	
5	517	650	M	5_2	
5	519	639	M	5_2	
5	535	660	M	5_2	
5	512	637	M	5_2	
5	502	624	F	5_2	
5	492	606	M	5_2	10+14
5	490	604	F	5_3	7+13
5	508	618	F	5_3	7+14
5	493	604	M	5_3	9+14
5	503	616	F	5_3	9+14
5	473	585	F	5_3	9+12
5	480	586	F	5_3	8+13
5	477	587	F	5_3	10+14
5	493	608	F	5_3	10+15
5	493	603	M	5_3	10+15
5	455	573	M	5_3	10+16
5	458	572	F	5_3	11+15
July 6	493	625	M	R_3	
6	473	574	F	4_2	
6	488	598	F	4_2	
6	490	598	F	4_2	
6	479	579	F	4_2	
6	525	650	M	5_2	
6	499	608	F	5_2	
6	536	664	M	5_2	
6	500	624	M	5_3^2	10+16

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 6	466	581	M	5_3	10+12
6	493	600	F	5_3	10+14
6	527	649	F	5_3	11+17
6	474	586	F	5_3	9+15
6	503	611	F	5_3	9+13
6	509	624	F	5_3	10+14
6	524	647	F	6_3	
6	461	554	F	4_3	
6	438	533	F	4_2	
6	496	616	M	4_2	
July 7	532	681	M	R^2	
7	458	571	F	4_1	
7	471	586	M	4_2	
7	436	540	F	4_2	
7	472	583	F	4_2	
7	457	557	F	4_2	
7	472	571	F	4_2	
7	443	548	F	4_2	
7	476	580	F	4_2	
7	483	579	F	4_2	
7	523	653	F	5_2	
7	501	609	F	5_2	
7	539	673	M	5_2	
7	521	656	M	5_2	
7	541	688	M	5_2	
7	551	688	M	5_2	
7	498	609	F	5_2	
7	528	651	M	5_2	
7	490	607	F	5_3	11+15
7	453	561	M	5_3	
7	493	596	F	5_3	11+15
7	489	613	M	5_3	10+15
7	508	618	F	5_3	11+11
7	498	610	M	5_3	11+16
7	507	625	F	5_3	10+ 9
7	482	598	M	5_3	8+19
7	491	603	F	5_3	12+ 6
7	521	649	M	5_3	9+15
7	480	588	F	5_3	
7	488	606	F	5_3	12+11
7	512	631	M	5_3	9+15
7	496	616	F	5_3	10+14
7	494	618	M	5_3	12+12
7	487	602	F	5_3	9+13
7	496	613	M	5_3	11+12
7	486	595	F	5_3	9+19
7	501	618	M	5_3	11+14
7	502	615	F	6_3	10+13
July 8	531	654	F	R^3	
8	537	662	F	R	
8	423	534	M	3_1	
8	456	559	F	4_2	
8	476	577	F	4_2	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 8	353	436	F	4_3	
8	546	673	M	5^2	
8	470	579	M	5^3	9+13
8	465	579	F	5^3	12+15
8	485	603	M	R^3	
8	504	607	F	4_1	
8	424	525	M	4^2	
8	458	563	F	4^2	
8	448	560	F	4^2	
8	461	558	M	4^2	
8	520	631	M	5^2	
8	543	678	F	5^2	
8	551	693	M	5^2	
8	523	653	M	5^2	
8	487	614	M	5^2	
8	510	621	M	5^2	
8	512	640	M	5^2	
8	487	618	F	5^2	
8	480	586	F	5^2	11+12
8	507	630	M	5^3	11+15
8	491	608	M	5^3	11+14
8	500	610	M	5^3	10+17
8	457	560	F	5^3	11+12
8	488	606	M	5^3	13+13
8	486	609	M	5^3	9+15
8	472	567	F	4^2	
July 10	450	557	F	4^2	
10	404	496	F	4^2	
10	454	548	F	4^2	
10	507	618	F	4^2	
10	487	608	M	4^2	
10	498	615	M	4^2	
10	320	395	F	4^2	
10	568	701	M	5^3	
10	531	656	F	5^2	
10	514	625	F	5^2	
10	510	620	F	5^2	
10	517	667	F	5^2	
10	488	613	M	5^2	11+13
10	499	618	F	5^3	10+17
10	507	627	M	5^3	10+11
10	515	644	M	5^3	8+13
10	507	618	F	5^3	10+15
10	486	600	F	5^3	10+12
10	481	591	F	5^3	9+15
10	489	600	F	5^3	9+16
10	518	646	M	6^3	
10	533	678	M	6^3	
July 11	492	609	M	R^3	
11	531	637	F	R	
11	463	568	F	4_2	
11	455	553	F	4^2	
11	452	550	F	4^2_2	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 11	483	589	F	4_2	
11	480	593	F	4_2	
11	551	671	M	5_2	
11	493	596	F	5_2	
11	563	689	M	5_2	
11	513	623	F	5_2	
11	547	666	M	5_2	
11	510	617	F	5_2	
11	500	604	F	5_2	
11	498	621	F	5_2	
11	517	636	M	5_2	
11	527	655	F	5_2	
11	531	657	M	5_2	
11	522	622	F	5_3	15+17
11	503	624	F	5_3	11+18
11	503	611	M	5_3	12+14
11	509	628	M	5_3	12+17
11	463	564	F	5_3	11+17
11	505	620	F	5_3	10+15
11	474	577	F	5_3	11+16
11	541	669	M	6_3	7+13
11	557	681	F	6_3	
11	441	543	F	4_2	
11	449	561	M	4_2	
11	450	559	M	4_2	
11	438	539	F	4_2	
11	455	564	F	4_2	
11	466	581	F	4_2	
11	431	532	F	4_2	
11	468	578	F	4_2	
11	502	619	F	5_2	
11	523	645	M	5_2	
11	448	514	F	5_2	
11	492	602	M	5_2	
11	550	661	F	5_2	
11	514	634	F	5_2	
11	472	591	F	5_2	
11	502	613	M	5_2	
11	530	653	M	5_2	
11	463	573	F	5_3	12+12
11	465	574	M	5_3	11+18
11	462	562	F	5_3	13+13
11	498	605	F	5_3	13+14
11	502	623	M	5_3	8+13
11	477	591	F	5_3	8+15
July 12	520	633	F	R_3	11+16
12	517	643	M	W	
12	473	579	M	4_2	
12	472	573	F	4_2	
12	503	614	F	5_2	
12	495	607	F	5_2	
12	538	650	F	5_2	
12	532	651	M	5_2	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 12	545	677	M	5_2	
12	538	660	F	5_2	
12	508	620	M	5_2	10+15
12	472	582	F	5_3	12+13
12	526	645	M	5_3	15+14
12	511	618	F	5_3	9+13
12	481	593	M	5_3	11+14
12	573	625	F	5_3	12+14
12	476	586	F	5_3	12+12
12	512	620	F	5_3	13+18
12	548	668	M	5_3	11+10
12	544	675	M	6_3	
12	563	688	M	6_3	
July 13	552	552	F	4_3	
13	568	568	M	4_2	
13	630	630	M	5_2	
13	638	638	M	5_2	
13	623	623	M	5_2	9+11
13	652	652	M	6_3	
13	546	681	M	W_3	
13	559	685	M	W	
13	507	617	F	4_2	
13	471	588	M	4_2	
13	467	586	M	4_2	
13	321	403	F	4_3	
13	518	640	M	5_3	
13	543	664	M	5_2	
13	521	653	M	5_2	
13	502	632	M	5_2	
13	493	602	F	5_2	
13	529	652	M	5_2	
13	543	673	M	5_2	
13	517	632	M	5_2	
13	508	613	F	5_2	
13	515	632	M	5_2	
13	523	653	M	5_2	
13	498	612	M	5_2	
13	526	634	M	5_2	
13	523	657	M	5_2	
13	489	608	F	5_2	
13	525	649	M	5_2	
13	505	622	F	5_2	
13	515	631	F	5_2	
13	510	631	M	5_2	10+13
13	517	633	M	5_3	7+15
13	484	599	M	5_3	11+12
13	460	571	F	5_3	12+13
13	483	591	M	5_3	9+14
13	479	598	F	5_3	8+14
13	457	560	M	5_3	11+10
13	529	664	M	5_3	14+12
13	478	582	F	5_3	7+13
13	492	602	F	5_3	12+13

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 13	465	581	F	5_3	10+16
13	489	593	F	5_3	8+11
13	515	625	M	5_3	10+11
13	489	614	M	6_3	
July 14	487	617	F	R^3	
14	518	637	F	5_2	
14	520	643	M	5_2	
14	504	632	F	5_2	
14	525	629	F	5_2	
14	497	618	M	5_2	
14	554	677	F	5_2	
14	475	595	F	5_2	
14	523	667	M	5_2	
14	560	693	M	5_2	
14	492	608	F	5_2	
14	497	620	M	5_3	10+13
14	488	611	M	R^3	13+14
14	475	597	M	R	
14	468	586	M	R	
14	439	549	F	R	
14	531	645	F	R	
14	539	657	M	R	
14	466	568	F	4_2	
14	398	504	M	4_2	
14	437	536	F	4_2	
14	444	551	M	4_2	
14	468	572	F	4_2	
14	500	622	M	4_2	
14	433	524	F	4_2	
14	568	717	M	5_2	
14	502	620	M	5_2	
14	508	643	M	5_2	
14	523	654	F	5_2	
14	568	696	M	5_2	
14	537	661	F	5_2	
14	503	625	F	5_2	
14	512	618	F	5_2	
14	520	641	F	5_2	
14	522	643	M	5_2	
14	474	582	F	5_2	
14	502	617	F	5_2	
14	430	530	M	5_2	
14	548	683	M	5_2	
14	521	661	M	5_2	
14	544	655	F	5_2	
14	528	649	M	5_2	
14	484	622	F	5_2	
14	523	653	M	5_3	13+18
14	487	596	M	5_3	10+16
14	510	636	M	5_3	8+16
14	464	570	F	5_3	11+10
14	500	614	F	5_3	7+15
14	493	607	F	5_3	6+15
					10+13

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 14	504	618	F	5_3	11+16
14	529	645	M	5_3	11+12
14	463	585	M	5_3	6+11
14	484	598	M	5_3	12+15
14	496	618	M	5_3	10+15
14	532	653	M	5_3	7+10
14	504	620	F	5_3	9+13
14	484	598	M	5_3	8+16
14	488	602	M	5_3	12+18
14	500	620	M	5_3	8+ 9
14	577	718	M	6_3	
14	562	702	M	6_3	
July 15	279	356	F	4_3	
15	472	582	F	4_2	
15	564	703	M	5_2	
15	490	621	F	5_2	
15	514	629	F	5_3	7+14
15	529	657	M	6_3	
July 17	518	637	F	R_3	
17	487	582	F	4_2	
17	442	542	M	4_2	
17	431	524	F	4_2	
17	324	401	F	4_2	
17	542	659	M	5_3	
17	487	603	M	5_2	
17	500	621	M	5_2	
17	500	626	F	5_2	12+13
17	508	628	F	5_3	10+14
17	460	574	F	5_3	13+18
17	572	696	F	6_3	
17	542	681	M	6_3	
17	465	575	F	6_3	
July 18	493	623	M	W_3	
18	463	571	F	4_2	
18	470	583	F	4_2	
18	491	612	F	5_2	
18	473	581	F	5_2	
18	518	638	F	5_2	
18	503	616	F	5_2	
18	514	644	M	5_2	
18	495	628	M	5_2	
18	542	669	M	5_2	
18	503	623	F	5_2	
18	552	698	M	5_2	
18	506	624	M	5_2	
18	516	635	F	5_2	
18	510	637	F	5_2	
18	521	655	M	5_2	
18	523	662	M	5_2	
18	538	686	M	5_2	
18	511	629	M	5_2	
18	479	594	F	5_2	12+15
18	518	645	M	5_3	13+17

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 18	474	589	F	5_3	11+14
18	488	603	F	5_3	13+15
18	518	628	F	5_3	9+13
18	469	592	M	5_3	14+13
18	524	654	F	5_3	8+17
18	509	639	M	5_3	12+14
18	489	591	F	5_3	
18	425	529	F	5_3	7+17
18	523	632	F	5_3	12+15
18	525	658	M	5_3	11+14
18	477	588	F	5_3	12+16
18	541	690	M	6_3	
18	574	703	F	6_3	
18	541	674	M	6_3	
18	535	664	M	6_3	
18	521	628	F	R_3	
18	585	683	F	R	
18	523	647	F	R	
18	534	651	F	W	
18	477	608	M	4_2	
18	408	507	F	4_2	
18	465	563	F	4_2	
18	502	617	F	5_2	
18	539	657	F	5_2	
18	503	637	M	5_2	
18	523	648	M	5_2	
18	532	665	M	5_2	
18	508	621	F	5_2	
18	557	687	M	5_2	
18	505	617	F	5_2	
18	483	596	F	5_2	
18	540	679	M	5_2	
18	520	650	M	5_2	
18	509	626	F	5_2	
18	478	586	F	5_2	
18	538	662	M	5_2	
18	522	638	F	5_2	
18	538	678	M	5_2	
18	507	620	F	5_2	
18	521	641	F	5_3	12+13
18	557	681	M	5_3	12+16
18	532	647	F	5_3	14+14
18	531	652	F	5_3	14+13
18	503	600	F	5_3	8+11
18	463	596	F	5_3	8+17
18	443	540	F	5_3	9+11
18	492	611	F	5_3	11+16
18	485	596	F	5_3	10+18
18	492	597	F	5_3	8+13
18	503	606	F	5_3	9+16
18	478	588	F	5_3	12+16
18	491	610	F	5_3	9+17
18	467	577	F	5_3	11+14

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 18	518	653	M	6_3	
July 19	526	652	F	R^3	
19	522	644	F	R	
19	402	486	F	4_2	
19	512	647	M	5_2	
19	511	648	M	5_2	
19	542	680	M	5_2	
19	521	636	F	5_2	
19	552	687	M	5_2	
19	490	603	F	5_2	
19	522	649	F	5_2	
19	532	648	M	5_2	12+15
19	432	533	F	R^3	
19	506	641	M	R	
19	540	662	F	R	
19	448	552	F	W	
19	443	543	F	4_2	
19	432	524	F	4_2	
19	452	553	F	4_2	
19	349	422	F	4_3	
19	323	398	F	4_3	
19	533	642	F	5_2	
19	500	621	F	5_2	
19	516	632	F	5_2	
19	541	687	M	5_2	
19	498	621	F	5_2	
19	489	614	F	5_2	
19	527	669	M	5_2	
19	546	690	M	5_2	
19	494	621	F	5_2	
19	532	661	M	5_2	
19	552	689	M	5_2	
19	529	659	M	5_2	
19	496	627	M	5_2	
19	507	627	M	5_3	9+16
19	471	589	F	5_3	12+16
19	500	615	F	5_3	8+13
19	463	584	F	5_3	9+18
19	488	602	F	5_3	13+14
19	529	655	F	5_3	11+15
19	442	554	F	5_3	9+15
19	514	632	M	5_3	9+13
19	497	616	M	5_3	12+17
19	508	636	F	5_3	12+16
19	471	577	F	5_3	8+15
19	495	615	F	5_3	11+17
19	523	648	F	5_3	11+14
19	490	607	M	5_3	14+15
19	474	596	M	5_3	13+12
19	438	559	M	5_3	8+17
19	503	622	M	5_3	7+19
19	532	651	F	5_3	12+14
19	500	610	F	5_3	11+17

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 19	484	582	F	5_3	7+14
19	529	664	M	5_3	14+14
19	502	610	F	5_3	8+16
19	492	597	M	5_3	7+13
19	510	615	F	5_3	12+18
19	579	723	M	6_3	
19	491	603	F	6_3	
19	557	686	F	6_3	
19	499	615	F	6_3	
19	538	662	F	R^3	
19	463	564	F	4_2	
19	544	663	F	5_2	
19	486	597	F	5_2	
19	505	621	F	5_2	
19	497	617	F	5_2	
19	483	590	F	5_2	
19	509	632	M	5_3	12+11
19	548	688	M	6_3	8+15
July 20	523	661	M	R^3	
20	498	611	F	R	
20	486	588	F	R	
20	438	548	M	R	
20	457	574	M	W	
20	463	573	F	4_2	
20	455	553	F	4_2	
20	423	523	F	4_2	
20	482	591	F	4_2	
20	447	552	M	4_2	
20	425	532	F	4_2	
20	444	546	F	4_2	
20	507	630	M	5_2	
20	497	597	F	5_2	
20	543	682	M	5_2	
20	508	628	F	5_2	
20	514	637	M	5_2	
20	522	632	F	5_2	
20	525	667	M	5_2	
20	488	612	F	5_2	
20	488	615	M	5_2	
20	492	594	F	5_2	
20	505	621	M	5_2	
20	492	610	F	5_2	
20	510	629	F	5_2	
20	503	618	F	5_2	
20	516	637	M	5_2	
20	526	655	M	5_2	
20	524	639	F	5_2	
20	504	629	F	5_3	10+17
20	503	618	F	5_3	10+15
20	507	612	M	5_3	13+13
20	546	669	M	5_3	9+14
20	531	648	F	5_3	10+13
20	503	623	M	5_3	12+15
					11+14

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 20	476	588	F	5_3	12+12
20	462	581	M	5_3	8+ 8
20	494	613	M	5_3	7+12
20	508	629	M	5_3	7+15
20	491	606	F	5_3	9+17
20	520	656	M	6_3	
20	530	648	F	R^3	
20	437	538	F	4_2	
20	538	638	F	5_2	
20	538	665	M	5_2	
20	528	648	M	5_2	
20	547	668	M	5_2	
20	524	643	F	5_2	
20	518	638	F	5_2	10+19
20	532	647	M	5_3	11+17
20	504	618	M	5_3	12+16
20	498	623	M	5_3	14+14
20	447	555	F	5_3	10+11
20	541	674	M	6_3	
20	577	700	F	6_3	
July 21	352	442	F	R^3	
21	539	667	F	R	
21	454	550	F	4_2	
21	457	558	F	4_2	
21	439	545	F	4_2	
21	524	647	M	5_2	
21	547	685	M	5_2	
21	550	684	M	5_2	
21	500	611	F	5_2	
21	534	658	F	5_2	
21	497	616	F	5_2	
21	521	644	F	5_2	
21	512	638	F	5_2	
21	534	654	F	5_2	
21	518	632	F	5_2	
21	570	708	M	5_2	
21	500	622	F	5_2	
21	540	669	M	5_2	
21	548	676	M	5_2	
21	533	655	M	5_2	
21	522	647	F	5_2	
21	529	673	M	5_2	
21	487	596	F	5_2	
21	528	633	F	5_2	
21	529	662	M	5_2	10+14
21	515	632	F	5_3	10+14
21	482	602	F	5_3	9+15
21	503	622	F	5_3	6+10
21	527	657	M	5_3	15+16
21	491	610	M	5_3	11+16
21	523	638	F	5_3	11+15
21	422	504	F	5_3	9+10
21	490	603	F	5_3	9+15

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 21	503	625	F	5_3	8+10
21	393	500	F	5_3	4+11
21	468	581	F	5_3	6+ 8
21	449	543	F	R^3	
21	513	633	F	R	
21	452	565	M	4_2	
21	468	578	M	4_2	
21	400	497	F	4_2	
21	544	675	M	5_2	
21	532	655	M	5_2	
21	509	622	F	5_3	9+14
21	505	615	F	5_3	10+14
21	467	577	F	5_3	12+11
July 22	478	596	F	W^3	8+11
22	517	617	F	W	
22	451	544	M	4_2	
22	486	588	M	5_2	
22	531	656	F	5_2	
22	512	642	M	5_2	
22	488	597	F	5_3	9+17
July 24	474	576	F	4_3	9+15
24	457	557	F	4_2	
24	437	545	F	5_2	
24	494	609	F	5_2	
24	489	617	M	5_2	
24	561	660	M	5_3	12+13
July 25	548	697	M	5_3	6+15
25	533	653	F	5_2	
25	547	692	M	5_2	
25	477	592	F	5_2	
July 26	437	537	F	4_3	10+12
26	501	620	M	4_2	
26	473	580	F	5_2	
26	524	643	F	5_2	
26	546	673	F	5_2	
26	531	660	F	5_2	
26	492	611	F	5_3	8+16
26	510	632	F	5_3	12+13
26	493	608	F	5_3	7+ 7
26	529	645	M	5_3	8+16
26	549	673	M	5_3	11+14
26	495	612	M	5_3	10+13
26	480	592	F	5_3	10+15
26	513	647	M	6_3	7+16
July 27	471	582	F	4_3	
27	543	669	F	5_2	
27	518	647	M	5_2	
27	511	627	F	5_2	
27	582	616	M	5_2	
27	504	636	M	5_2	
27	473	580	F	5_2	
27	565	702	M	5_2	
27	529	666	M	5_2	

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 27	468	591	F	5_3	6+12
27	540	662	M	5_3	9+15
27	446	548	F	5_3	6+ 9
27	462	564	F	5_3	10+13
27	527	652	F	5_3	14+16
27	536	661	M	5_3	11+13
27	492	607	F	5_3	8+14
27	522	635	F	5_3	13+10
27	531	658	M	5_3	8+15
27	538	675	M	5_3	11+15
July 28	500	633	M	5_3	
28	550	669	M	5_2	
28	526	671	M	5_2	
28	487	613	M	5_2	
28	504	619	F	5_2	11+11
28	587	734	M	6_3	
28	557	691	M	6_3	
28	543	678	M	5_3	
28	520	645	M	5_2	
28	522	641	F	5_2	10+17
28	505	622	F	5_3	7+12
28	530	656	F	5_3	8+15
28	515	633	F	5_3	12+16
28	528	651	M	5_3	10+12
28	470	587	M	5_3	13+14
28	507	623	F	5_3	13+14
28	552	686	M	5_3	11+15
28	512	639	M	5_3	12+14
28	533	655	F	5_3	11+13
28	532	650	F	5_3	7+13
28	530	665	M	6_3	
July 29	469	587	M	4_3	
29	448	564	M	4_2	
29	502	613	M	4_2	
29	442	542	F	4_2	
29	337	417	F	4_2	
29	494	628	M	5_3	
29	493	623	M	5_2	
29	523	654	M	5_2	
29	503	627	F	5_2	
29	515	647	M	5_2	
29	502	609	F	5_2	7+12
29	528	645	F	5_3	10+15
29	524	652	M	5_3	9+14
29	481	605	F	5_3	12+15
29	486	607	F	5_3	10+15
29	510	615	M	5_3	7+ 7
29	500	616	F	5_3	11+16
29	496	603	F	5_3	9+13
29	437	555	F	5_3	4+11
29	422	528	M	5_3	5+11
29	491	618	M	5_3	9+18
29	486	604	M	5_3	8+14

APPENDIX 8. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 29	476	584	F	5_3	8+12
29	521	652	M	6_3	
29	571	718	M	6_3	
29	557	693	M	6_3	
29	534	662	F	6_3	
July 30	470	587	F	4_2	
30	465	571	F	4_2	
30	527	650	M	5_3	9+12
30	514	632	F	5_3	13+13
30	365	444	M	5_3	
30	526	654	M	5_3	7+16
30	477	591	F	5_3	7+15
30	505	611	F	5_3	11+16
30	517	642	M	6_3	
30	314	387	M	4_3	
July 31	478	603	M	5_3	10+13
31	451	552	F	5_3	9+12

APPENDIX 9. 1988 Nass gillnet test fishery sockeye age sex and length data.

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 10	463	572	F		
10	460	587	F		
10	453	562	F		
10	462	562	F		
June 11	471	586	F		
11	469	584	F		
11	457	578	M		
June 12	526	644	F		
12	511	619	M		
12	526	641	F		
12	512	632	M		
12	494	618	M		
12	347	444	F		
June 13	512	618	F		
13	510	642	M		
13	570	691	M		
13	483	578	F		
13	533	652	M		
13	541	664	M		
13	522	647	M		
13	548	663	F		
13	521	645	M		
June 14	585	722	M		
14	550	681	M		
14	456	556	F		
14	440	550	M		
14	530	642	F		
14	512	614	F		
14	515	628	F		
14	488	606	M		
14	491	598	M		
14	502	624	M		
14	527	655	M		
14	487	588	F		
14	467	565	F		
14	488	597	M		
14	482	577	F		
14	496	612	F		
14	531	627	F		
14	359	441	F		
14	495	615	M		
June 15	538	660	M		
15	526	629	M		
15	476	576	M		
15	514	621	M		
15	520	620	F		
15	537	636	M		
15	503	631	M		
15	422	510	M		
15	381	455	M		
June 17	496	608	F	5_2	
17	513	618	F	5_2	
17	520	637	M	4^2_1	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 18	527	670	M	4_1	
18	512	646	M	5_2	
18	530	642	F	5_2	
18	518	630	F	6_3	
18	447	546	F	4_1	
18	421	532	F	5_2	
18	396	481	F	R^2	
18	492	597	F	5_3	10+11
18	477	589	F	4_1	
18	540	672	M	6_3	
18	540	650	F	5_2	
18	477	575	F	4_1	
18	483	589	F	5_2	
June 19	490	615	M	5_2	
19	500	615	M	5_2	
19	471	592	M	4_1	
19	490	605	M	6_3	
19	498	600	F	5_3	8+14
19	447	552	F	5_2	
19	471	559	F	4_2	
19	471	571	F	4_2	
June 20	542	642	M	4_2	
20	551	664	F	5_1	
20	534	648	F	5_2	
20	507	624	F	5_2	
20	501	624	M	4_2	
20	507	622	F	5_1	
20	491	603	F	5_2	11+12
20	500	614	F	6_3	
20	472	578	F	4_3	
20	486	597	M	5_1	11+12
20	468	571	F	4_3	
20	472	571	F	4_1	
20	444	553	F	5_2	12+11
20	481	575	F	5_3	9+11
20	473	571	F	5_3	10+13
20	436	538	M	3_3	
20	465	581	F	4_1	
20	505	627	M	R^2	
20	545	667	M	5_2	
20	549	674	M	5_2	
20	523	643	F	6_3	
20	462	553	F	5_3	12+13
20	551	655	F	5_3	
20	443	543	M	3_2	
20	448	552	F	5_1	10+13
20	488	600	M	4_3	
20	470	574	F	4_2	
20	475	570	F	R^1	
20	481	583	M	5_2	
20	423	523	M	4_1	
20	367	453	M	3_1	
20	477	580	F	R^1	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 20	430	526	F	3_1	
20	455	557	F	5_1	
20	507	618	F	4_2	
20	478	589	F	4_1	
20	482	587	F	5_1	10+10
20	472	578	F	4_3	
20	508	653	M	5_2	
20	570	667	F	4_2	
June 21	542	655	F	5_2	
21	515	645	F	5_2	
21	425	543	M	3_2	
21	491	618	F	6_1	
21	482	598	F	R_3	
21	456	548	F	4_1	
21	502	639	M	4_1	
21	488	612	M	5_1	11+11
21	457	555	F	5_3	9+9
21	515	640	F	5_3	
21	510	623	F	5_2	
21	500	630	M	5_2	
21	497	615	M	4_2	
21	510	650	M	5_2	
21	512	630	F	5_2	
21	457	560	F	5_2	8+13
21	466	567	F	5_3	7+13
21	483	590	F	4_3	
21	451	561	F	4_1	
21	480	600	F	5_1	
21	489	633	M	R_2	
21	471	577	F	5_3	9+9
21	530	660	M	6_3	
21	544	678	M	6_3	
21	496	620	M	5_3	
21	573	717	M	5_2	
21	493	612	M	R_2	
21	507	618	F	5_2	
21	534	648	F	6_2	
21	485	594	F	5_3	8+15
21	473	575	F	5_3	10+11
21	425	520	M	3_1	
21	500	621	M	4_1	
21	547	664	F	5_2	
21	523	628	F	5_2	
21	444	555	M	3_1	
21	555	680	F	5_2	
21	492	600	F	4_2	
21	557	684	F	6_1	
21	578	705	M	5_3	
21	476	584	F	4_2	
21	510	626	M	5_2	10+11
21	521	650	M	5_3	
21	524	648	F	5_2	
21	483	596	F	4_2	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 21	493	603	M	5_3	10+10
21	506	565	F	4_1	
21	485	581	F	4_1	
21	574	704	M	6_3	
21	573	687	M	6_3	
June 22	512	633	M	4_1	
22	447	554	F	R^1	
22	485	583	F	4_2	
22	487	590	F	4_2	
22	530	649	F	6_3	
22	467	568	F	5_3	9+12
22	500	607	M	5_3	9+9
22	518	626	F	6_3	
22	465	570	F	4_2	
22	473	566	F	4_2	
22	402	500	M	R^2	
22	358	448	M	3_1	
June 24	488	594	M	4_2	
24	510	625	F	5_3	8+9
24	422	515	F	3_1	
24	444	668	M	6_3	
24	495	595	F	4_1	
24	534	655	M	5_2	
24	545	657	F	5_2	
24	513	627	F	4_2	
24	500	603	F	5_3	9+10
24	473	563	F	4_2	
24	452	554	F	4_2	
24	502	604	F	5_3	9+7
24	540	653	F	5_2	
24	523	643	M	5_2	
24	536	656	F	6_3	
24	493	604	M	5_3	9+10
24	448	558	M	3_1	
24	394	485	M	3_1	
24	514	621	M	5_3	9+10
24	498	596	F	4_1	
24	482	578	F	5_3	8+11
June 25	464	561	F	5_3	8+11
25	411	502	F	3_1	
25	460	563	F	5_3	9+10
25	525	640	M	5_3	8+10
25	438	543	M	3_1	
25	508	617	F	5_3	10+10
25	511	627	F	5_2	
25	498	606	M	4_2	
25	412	511	F	3_1	
25	470	568	F	4_1	
25	404	495	F	3_1	
25	548	668	M	5_2	
25	478	588	F	5_3	7+10
25	475	578	F	5_3	8+10
25	513	627	F	5_2	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 25	508	628	F	5_3	8+8
25	462	561	F	5_3	7+8
25	484	588	F	5_3	8+7
25	518	636	F	5_3	
25	486	586	F	5_2	7+10
25	506	617	F	5_3	
25	488	588	M	5_2	11+12
25	493	609	F	4_3	
25	458	569	F	5_2	8+9
25	523	648	M	R^3	
25	490	585	F	5_3	10+9
25	483	575	F	5_3	8+10
June 26	560	700	F	6_3	
26	437	538	M	5_3	9+11
26	498	603	F	4_3	
26	480	590	F	5_1	10+10
26	492	597	F	5_3	8+9
26	522	631	F	5_3	
26	476	587	F	5_2	8+11
26	409	503	F	5_3	9+9
26	506	603	F	5_3	9+10
26	508	617	F	5_3	9+10
26	500	613	F	R^3	
26	485	597	F	5_3	11+8
26	470	577	F	4_3	
26	484	618	M	R^2	
26	396	500	M	3_1	
26	458	557	F	R^1	
26	469	560	F	4_2	
26	523	633	F	5_2	
26	438	542	F	5_2	
26	510	625	F	5_2	9+12
26	549	677	M	6_3	
26	493	593	F	5_3	9+9
26	463	577	M	5_3	10+10
26	416	526	M	3_3	
26	430	551	M	3_1	
26	461	566	F	5_1	8+10
26	552	677	M	5_3	
26	466	567	F	5_2	8+11
26	497	612	F	5_3	8+11
26	487	580	F	5_3	8+11
26	512	612	F	5_3	10+9
26	467	563	F	4_3	
26	485	590	F	5_2	9+8
26	435	525	F	3_3	
26	558	688	M	6_1	
26	525	631	F	6_3	
26	482	594	F	5_3	8+11
26	505	606	F	5_3	9+8
June 27	407	485	F	3_1	
27	464	577	M	3_1	
27	508	610	F	R^1	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 27	522	650	F	5_2	
27	446	542	F	4^2	
27	482	575	F	5^2	8+11
27	473	568	F	5^3	8+11
27	525	635	F	5^3	9+10
27	495	583	F	6^3	
27	517	628	F	5^3	
27	471	572	F	4^2	
27	447	552	F	4^2	
27	398	493	F	5^1	8+10
27	527	640	F	5^3	
27	598	720	M	6^2	
27	453	553	F	4^3	
27	493	603	M	4^2	
27	511	631	F	6^2	
27	473	570	F	5^3	8+7
27	480	568	F	4^3	
27	500	608	F	5^2	7+13
27	526	648	F	5^3	9+9
27	505	615	M	5^3	9+13
27	503	663	F	5^3	
27	477	588	F	R^2	
27	511	610	F	5_2	
27	464	562	F	4^2	
27	521	630	F	6^2	
27	498	603	F	5^3	10+12
27	483	577	F	5^3	6+12
27	482	585	F	5^3	8+12
27	526	638	F	5^3	
27	460	559	F	5^2	6+14
27	452	553	F	4^3	
27	466	570	F	5^2	8+14
27	455	557	F	4^3	
27	548	676	F	5^2	
27	547	667	M	6^2	
27	477	575	F	4^3	
27	495	618	M	5^2	10+10
27	486	597	F	5^3	5+6
27	494	608	F	4^3	
27	507	618	F	5^2	6+11
27	461	565	F	5^3	7+11
27	476	573	F	5^3	9+12
27	463	563	F	4^3	
27	543	657	F	6^1	
27	543	683	M	4^3	
27	513	623	F	5^1	9+10
27	460	560	F	4^3	
27	605	735	M	6^2	
27	532	658	M	5^3	
27	512	618	F	4^2	
27	478	582	F	5^2	7+9
27	508	623	M	5^3	8+8
27	462	568	F	4^3_2	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 27	450	555	F	4_2	
27	545	675	M	5^2	
27	458	560	F	4^2	
27	383	485	F	3^2	
27	470	573	F	4^1	
27	567	670	F	6^2	
27	460	561	F	4^3	
27	468	578	F	5^2_3	9+9
27	468	573	F	5^3	
27	512	627	F	5^3	8+11
27	473	573	F	5^3	9+10
27	482	574	F	5^3	8+12
27	523	653	M	5^3	
27	500	603	F	R^2	
27	494	600	F	5_3	9+11
27	518	661	M	4^3	
27	533	649	F	5^1	
27	559	678	F	5^2	
27	470	571	F	5^2	
27	477	587	F	4^3	
27	523	646	F	5^2	
27	500	617	F	5^2	8+11
June 28	470	572	F	5^3	8+11
28	514	630	F	5^3	8+11
28	497	609	F	4^3	
28	506	609	F	5^1_3	7+11
28	511	617	F	5^3	
28	512	633	M	4^2	
28	461	564	F	5^1	
28	474	574	F	5^3	8+8
28	483	594	F	5^3	9+15
28	460	553	F	4^3	
28	493	590	F	5^2_3	9+12
28	500	615	F	5^3	9+11
28	506	611	F	5^3	9+9
28	476	673	F	5^3	5+10
28	541	647	F	6^3	
28	447	547	F	3^3	
28	511	620	F	5^1_3	8+9
28	497	600	F	5^3	8+10
28	556	683	F	5^3	
28	533	633	F	5^2	
28	460	553	F	5^2_3	8+12
28	553	677	M	6^3	
28	488	593	F	5^3	7+10
28	506	617	M	5^3	8+11
28	510	620	F	4^3	
28	490	590	F	5^2_3	9+13
28	498	604	F	5^3	
28	495	610	M	5^2_3	8+13
28	526	633	F	5^3	
28	486	592	M	5^2_3	7+12
28	523	622	F	5^3_2	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 28	454	546	F	5_3	10+12
28	493	600	F	5_3	8+11
28	480	588	F	5_3	7+10
28	520	650	F	6_3	
28	495	608	F	5_3	7+9
28	510	617	F	5_3	8+10
28	458	565	M	4_3	
28	532	652	M	5_2	
28	481	584	F	4_2	
28	447	544	F	5_1	9+8
28	560	691	F	6_3	
28	484	591	M	5_3	8+11
28	425	522	F	4_3	
28	512	617	F	5_1	
28	452	565	M	4_2	
28	524	637	F	5_2	7+10
28	508	612	F	5_3	8+8
28	493	600	F	R_3	
28	510	623	F	5_3	9+12
28	473	575	F	5_3	8+10
28	472	588	M	4_1	
28	482	588	M	4_2	
28	492	557	F	5_3	8+11
28	449	670	M	5_2	
28	470	570	F	5_3	9+8
28	501	623	F	5_2	
28	485	573	F	4_2	
28	535	658	M	6_2	
28	477	572	F	5_3	9+14
28	510	616	F	5_2	
28	499	598	F	5_3	9+9
28	508	616	F	5_2	
28	495	596	F	5_3	8+9
28	517	627	F	5_3	7+12
28	400	484	F	3_3	
28	500	610	F	5_1	8+12
28	505	630	M	5_3	10+11
28	492	600	F	5_3	8+11
28	460	560	F	5_3	7+10
28	490	594	F	5_3	8+10
28	466	573	M	4_3	
28	515	628	M	4_1	
28	458	548	F	4_2	
28	497	606	F	5_2	9+10
28	538	635	F	5_3	
28	549	688	M	5_2	
28	521	638	F	5_2	
28	495	600	F	5_3	8+10
28	475	695	M	5_2	
28	483	587	F	4_2	
28	477	573	F	5_3	5+12
28	449	551	F	3_3	
28	514	619	F	R_1	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
June 28	490	596	F	5_2	
28	477	595	F	4_2^1	
28	453	558	F	4_2^1	
28	425	535	F	R^2	
28	502	600	F	5_3	9+13
28	475	580	F	5_3^3	7+9
28	518	635	F	6_3^3	
28	470	578	F	4_3^1	
28	464	571	F	4_2^1	
28	483	575	F	4_2^2	
28	477	580	F	5_3^2	9+9
28	513	628	F	5_3^3	9+10
28	492	602	F	5_3^3	7+8
28	499	599	F	5_3^3	8+11
28	460	566	F	4_3^1	
28	509	626	M	5_3^1	8+10
28	473	580	F	4_3^2	
28	468	559	F	4_2^2	
June 29	573	700	M	5_2^2	
29	476	588	M	4_2^2	
29	467	774	F	4_2^1	
29	483	600	F	4_2^1	
29	545	664	F	5_2^2	
29	503	601	F	4_2^1	
29	558	678	M	5_2^1	
29	488	635	M	R^2	
29	467	565	F	5_3	10+11
29	510	617	F	5_3^3	8+10
29	470	577	F	4_3^3	
29	507	605	F	5_3^1	10+11
29	417	521	M	3_3^1	
29	480	585	F	5_2^1	
29	452	555	F	R^2	
29	525	639	F	5_2	
July 2	542	661	F	6_3^2	
2	495	611	M	5_3^3	9+12
2	492	586	F	W^3	
2	455	552	F	5_3	9+9
2	494	604	M	5_3^3	9+11
2	471	572	F	5_3^3	9+10
2	483	590	F	5_3^3	8+13
2	486	581	F	5_3^3	9+14
2	465	574	M	4_3^2	
2	480	583	M	5_3^2	10+13
2	480	575	F	5_3^3	9+14
2	520	640	F	6_3^3	
2	432	530	F	3_3^1	
2	487	585	F	5_3^1	8+10
2	452	553	F	4_3^2	
July 3	486	606	M	5_3^2	8+13
3	493	603	M	4_3^2	
3	483	582	M	5_3^2	10+12

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 3	473	570	M	5_3	9+12
3	460	574	M	5_3	11+12
3	500	603	F	5_3	9+12
3	465	565	F	5_3	8+14
3	477	577	F	4_2	
3	468	548	F	NP	
3	477	574	F	5_3	8+14
3	465	555	F	4_2	
3	470	565	F	4_2	
3	460	554	F	4_2	
3	445	534	F	4_2	
3	472	562	F	W^2	
3	355	433	M	3_1	
3	490	590	F	4_1	
3	514	612	F	5_3^1	10+10
3	524	645	M	4_2	
3	510	620	M	5_2	
3	545	655	M	6_3	
3	512	608	F	5_3	10+10
3	506	608	F	5_3	10+11
3	468	571	F	5_3	9+11
3	506	612	F	R^3	
3	485	590	F	4_2	
3	479	577	F	5_3	8+11
3	538	642	F	6_3	
3	465	558	F	4_2	
3	465	552	F	5_3	8+12
3	462	557	F	5_3	7+13
3	556	677	M	6_3	
July 4	473	575	F	W^3	
4	452	552	F	5_3	8+14
4	518	622	F	5_3	
4	480	580	F	W^2	
4	520	623	F	5_3	9+11
4	470	566	F	5_3	9+10
4	500	600	F	5_3	8+16
4	530	641	M	R^3	
4	518	635	M	5_2	
4	513	626	M	5_3	9+12
4	482	605	M	5_3	9+12
4	484	585	F	5_3	9+12
4	550	670	M	6_3	
4	468	560	F	4_2	
4	500	600	F	5_3	8+10
4	495	610	M	5_3	9+12
4	511	625	M	W^3	
4	477	575	F	5_3	10+12
4	471	570	F	5_3	9+10
4	512	622	M	5_3	9+9
4	493	582	F	5_3	7+9
4	478	577	F	4_3	
4	480	576	F	R^2	
4	504	604	F	5_3	8+12

APPENDIX 9. Continued

DATE		HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July	4	498	594	F	5_3	8+13
	4	486	585	F	5_3^3	6+15
	4	505	602	F	5_3^3	8+10
	4	494	584	F	5_3^3	9+10
	4	472	570	F	5_3^3	11+12
	4	492	582	F	5_3^3	9+11
	4	473	572	F	R^3	
	4	448	548	F	5_3	10+15
	4	442	530	F	5_3^3	10+9
July	5	577	677	M	5_3^3	7+8
	5	556	656	M	5_3^3	
	5	487	600	F	5_3^2	9+10
	5	500	608	F	5_3^3	7+12
	5	490	594	F	W^3	
	5	478	576	F	5_3	8+11
	5	490	596	F	5_3^3	8+13
	5	480	588	F	5_3^3	10+12
	5	460	560	F	5_3^3	10+12
	5	485	593	F	5_3^3	10+11
	5	432	541	F	5_3^3	7+13
	5	505	610	F	5_3^3	8+15
	5	512	630	F	4_3^2	
	5	514	635	M	5_3^2	9+13
	5	472	568	F	4_3^2	
	5	473	568	F	4_2^2	
	5	465	556	F	4_2^2	
	5	468	555	F	4_2^2	
	5	447	550	F	5_3^2	8+13
	5	416	500	F	4_2^3	
	5	488	588	F	5_3^2	10+12
	5	484	582	F	5_3^3	8+9
	5	512	614	M	5_3^3	10+13
	5	515	630	M	R^3	
	5	518	628	M	4_2	
	5	506	614	F	5_3^2	
	5	530	655	M	5_3^2	
	5	470	565	F	5_3^2	5+11
	5	535	650	M	5_3^3	9+9
	5	481	578	F	5_3^3	11+11
	5	504	624	F	6_3^3	
	5	505	612	F	5_3^3	
July	6	495	600	F	4_2^2	
	6	471	568	F	4_2^2	
	6	464	556	F	4_2^2	
	6	552	683	M	5_3^2	
	6	546	672	M	5_3^2	
	6	494	588	F	5_3^2	9+10
	6	479	579	F	5_3^3	10+10
	6	486	594	F	5_3^3	8+14
	6	453	546	F	5_3^3	6+12
	6	524	635	F	5_3^3	
July	8	503	620	F	5_3^2	9+11
	8	470	583	M	4_2^3	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 8	525	638	M	5_3	9+13
8	470	580	F	5_3	10+9
8	486	596	F	5_3	9+13
8	442	538	F	4_2	
8	472	573	F	5_3	10+10
8	460	565	F	4_2	
8	488	600	M	5_3	8+12
8	483	583	F	5_3	9+9
8	444	535	M	4_2	
8	482	575	F	5_3	11+9
8	477	582	F	4_2	
8	513	630	F	R^2	
8	471	580	F	5_3	9+9
8	470	578	M	5_3	11+11
8	472	567	F	R^3	
8	470	562	F	5_3	8+11
8	486	594	F	5_3	8+15
8	530	641	F	5_3	
8	493	606	M	5_2	9+13
8	463	565	F	4_3	
8	500	618	M	5_2	8+14
8	521	638	M	5_3	
8	496	612	M	5_2	9+12
8	492	600	M	5_3	8+15
8	483	592	F	5_3	8+13
8	482	592	F	5_3	9+9
8	489	583	F	5_3	9+12
8	442	542	F	5_3	9+13
8	458	548	F	4_2	
8	485	592	M	4_2	
8	432	530	F	5_2	
8	482	583	F	5_2	8+11
8	458	559	F	4_3	
8	473	575	F	R^2	
8	532	665	M	5_2	
8	472	574	M	5_2	10+11
July 9	535	645	M	5_3	
9	514	615	M	5_2	
9	511	623	F	5_2	9+7
9	486	586	F	4_3	
9	508	603	F	5_2	10+8
9	490	590	F	5_3	9+10
9	471	576	F	5_3	9+12
9	406	502	F	4_3	
9	460	528	F	5_2	9+9
9	425	525	F	4_3	
9	489	600	M	5_2	9+12
9	446	542	F	5_3	9+15
9	496	600	M	5_3	9+11
9	460	562	F	5_3	9+13
9	518	626	F	5_3	
9	506	622	M	5_2	6+15
9	450	544	F	5_3	9+10

APPENDIX 9. Continued

DATE		HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July	9	457	552	F	5_{3}	10+11
	9	518	635	M	5^{2}_{3}	
	9	476	572	F	5^{3}_{3}	9+11
	9	532	656	F	5^{3}_{3}	9+10
	9	485	585	F	5^{3}_{3}	8+13
	9	491	607	F	5^{3}_{3}	9+12
	9	480	581	F	5^{3}_{3}	9+11
	9	481	588	F	5^{3}_{3}	9+12
	9	470	564	F	5^{3}_{3}	9+11
	9	482	584	M	5^{3}_{3}	7+13
	9	464	577	M	5^{3}_{3}	8+14
	9	535	658	M	5^{3}_{3}	
	9	505	621	M	5^{2}_{3}	9+11
	9	523	643	M	5^{3}_{3}	11+10
	9	465	560	F	5^{3}_{3}	12+14
	9	494	592	F	5^{3}_{3}	9+9
	9	465	573	F	5^{3}_{3}	10+14
	9	475	570	F	5^{3}_{3}	10+13
	9	478	580	F	4^{3}_{2}	
	9	468	565	F	R^{2}	
	9	506	621	F	5_{3}	10+14
	9	514	633	M	R^{3}	
	9	473	565	F	5_{3}	10+10
	9	526	660	M	5^{3}_{3}	8+7
	9	484	597	F	5^{3}_{3}	8+10
	9	474	564	F	5^{3}_{3}	10+12
	9	528	633	M	5^{3}_{3}	6+9
	9	527	645	M	5^{3}_{3}	
	9	525	625	F	5^{2}_{3}	6+17
	9	484	597	M	5^{3}_{3}	8+13
	9	460	552	F	5^{3}_{3}	7+9
	9	496	600	M	5^{3}_{3}	7+14
	9	471	588	F	5^{3}_{3}	9+15
	9	508	620	M	5^{3}_{3}	10+13
	9	506	606	M	5^{3}_{3}	9+10
	9	472	580	F	5^{3}_{3}	8+12
	9	543	672	M	5^{2}_{3}	
	9	503	606	F	5^{2}_{3}	9+12
	9	446	550	M	5^{3}_{3}	8+11
	9	482	581	F	4^{2}_{3}	
	9	485	600	M	5^{2}_{3}	9+11
	9	515	633	M	5^{3}_{3}	11+13
	9	510	615	M	4^{2}_{3}	
	9	500	603	M	4^{2}_{3}	
	9	473	578	F	5^{2}_{3}	9+12
	9	442	533	F	5^{3}_{3}	9+12
	9	488	596	F	5^{3}_{3}	10+9
	9	492	600	M	4^{2}_{3}	
	9	410	505	M	4^{2}_{3}	
	9	455	551	M	5^{2}_{3}	4+10
	9	522	636	F	R^{3}	
	9	478	581	F	4_{3}	
	9	492	600	F	5^{2}_{3}	9+10

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 9	447	550	F	5_3	7+13
9	473	578	F	5_3	8+13
9	477	581	F	5_3	8+10
9	460	563	F	5_3	8+12
9	465	556	F	5_3	9+9
9	522	635	F	5_3	11+13
9	478	577	F	5_3	10+11
9	515	632	M	5_3	11+13
9	515	645	M	5_3	
9	487	587	F	5_2	10+9
9	486	593	F	5_3	9+11
9	482	600	F	5_3	8+12
9	490	594	F	5_3	8+13
July 10	509	627	M	4_3	
10	597	612	M	5_2	9+10
10	524	635	M	5_3	
10	553	677	F	5_2	
10	497	612	M	5_2	9+12
10	537	658	M	R_3	
10	482	594	M	5_3	8+13
10	514	625	M	5_3	10+9
10	475	580	M	5_3	7+8
10	533	660	M	6_3	9+13
10	473	565	F	R_3	
10	508	616	M	5_3	11+11
10	484	587	F	5_3	10+10
10	507	600	F	5_3	10+12
10	476	588	M	5_3	8+9
10	458	553	F	5_3	9+13
10	500	606	M	5_3	9+11
10	488	597	M	4_3	
10	475	580	M	5_2	7+10
10	497	606	M	4_3	
10	457	551	F	5_2	8+12
10	462	556	F	5_3	10+10
10	528	634	F	6_3	
10	452	555	F	5_3	8+9
10	461	552	F	5_3	8+12
10	526	651	M	5_3	9+12
10	500	625	M	NP	
10	496	607	M	R	
10	477	583	F	5_3	7+14
10	479	588	M	5_3	8+11
10	480	580	F	5_3	8+15
10	418	523	F	4_3	
10	506	606	F	R_2	
10	446	548	F	5_3	9+12
10	530	657	M	5_3	
10	460	554	F	5_2	9+10
10	469	562	F	5_3	5+14
10	508	623	M	5_3	
10	466	564	F	5_2	8+13
10	453	553	F	4_2^3	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 10	453	560	F	5_3	9+13
10	468	576	M	5_3	11+8
10	442	542	F	4_2^3	
10	442	529	F	4_2^2	
10	476	565	M	4_2^2	
10	400	480	F	4_2^2	
10	483	592	M	5_3^2	8+12
10	479	584	F	5_3^3	7+8
10	472	577	F	5_3^3	6+9
10	430	523	F	4_2^3	
10	453	559	F	4_2^2	
10	469	569	F	5_3^2	8+11
10	545	665	M	R_3	
10	461	561	M	4_2	
10	428	519	M	4_2^2	
10	492	591	F	5_3^2	10+10
10	453	547	M	4_2^3	
10	553	675	M	6_3^2	
10	511	626	F	5_3^3	
10	512	635	M	5_3^2	12+11
10	516	640	M	6_3^3	
10	450	551	F	5_3^3	7+12
10	476	585	F	5_3^3	10+11
10	443	547	F	5_3^3	8+13
10	493	603	M	5_3^3	10+13
10	455	547	F	5_3^3	9+9
10	521	646	M	5_3^2	
10	475	570	F	5_3^2	8+16
10	505	620	M	4_2^3	
10	535	648	M	5_2^2	
10	545	667	M	5_2^2	
10	458	564	M	R_2	
10	482	593	F	4_2	
10	460	565	F	5_3^2	8+12
10	515	638	M	5_3^3	10+10
10	460	563	F	5_3^3	9+13
10	480	580	F	4_2^3	
10	565	690	F	6_3^2	
10	487	597	F	4_2^3	
10	448	553	F	4_2^2	
10	493	596	F	5_3^2	9+11
10	512	631	M	5_3^3	6+7
10	485	584	M	4_2^3	
10	488	590	F	R_2	
10	500	601	F	5_3	8+10
10	500	608	M	5_3^3	9+11
10	476	575	F	4_2^3	
10	530	648	M	5_2^2	
10	479	577	F	5_3^2	11+14
10	534	665	M	5_2^3	
10	534	657	F	5_2^2	
10	445	546	F	4_2^2	
10	590	603	F	5_3^2	10+13

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 10	472	568	F	4_2	
10	471	582	F	4_2	
10	525	649	M	5_2	
10	482	590	F	4_3	10+12
10	488	600	F	5_2	
10	473	574	F	5_3	8+13
10	477	565	F	5_3	8+12
10	447	540	F	4_3	11+10
10	500	603	M	5_2	
July 11	478	590	F	5_3	9+13
11	464	565	F	4_2	
11	460	560	F	4_2	
11	559	564	M	4_2	
11	495	631	M	5_2	
11	490	602	M	4_2	
11	493	603	M	5_2	
11	463	572	M	W_3	10+13
11	523	632	F	5_2	
11	502	627	M	5_3	
11	482	586	F	5_3	10+7
11	483	600	F	5_3	8+11
11	468	595	M	4_3	10+11
11	492	603	F	5_2	
11	491	598	F	5_3	8+12
11	467	567	F	5_2	
11	500	618	M	5_3	10+10
11	469	568	M	4_3	10+11
11	437	541	F	5_2	
11	457	548	F	5_3	10+8
11	469	584	M	5_3	11+12
11	468	561	M	5_3	8+12
11	475	580	F	5_3	7+10
11	465	555	F	4_3	9+13
11	464	564	F	5_2	
11	469	569	F	5_3	10+11
11	485	601	F	5_3	11+12
11	531	642	M	5_3	10+9
11	462	560	M	4_3	7+9
11	502	631	M	W_2	
11	482	573	F	R	
11	565	695	M	5_2	
11	527	647	M	5_2	
11	583	707	M	6_2	
11	538	648	F	R_3	
11	600	740	M	6_3	
11	452	560	F	5_3	
11	518	624	F	R_3	7+13
11	484	584	F	4_2	
11	485	605	M	5_2	
11	527	637	M	5_3	7+8
11	465	556	F	5_2	
11	515	630	F	6_2	
11	488	589	F	5_3	9+11

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 11	481	588	F	5_3	7+10
11	588	727	M	6_3	
11	515	625	M	W_3	
11	552	682	M	5_2	
11	539	661	M	5_2	
11	480	582	F	5_3^2	8+10
11	501	602	F	6_3	
11	516	624	F	R_3	
11	510	627	M	5_3	8+11
11	452	670	M	5_2	
11	512	635	M	5_2	
11	478	582	M	5_3^2	9+13
11	491	588	F	5_3	10+11
11	525	635	M	5_3	10+13
July 12	485	593	M	5_3	9+12
12	463	568	F	4_2	
12	416	506	F	4_2	
12	454	560	F	5_3^2	9+13
12	510	618	F	5_3	11+12
12	500	610	M	4_2	
12	465	561	F	5_3^2	7+14
12	510	632	F	5_3	
12	463	566	F	5_3^2	8+11
12	479	576	F	5_3	9+9
12	465	555	F	5_3	9+12
12	430	525	F	4_2	
12	480	600	M	4_2	
12	490	597	F	5_3^2	9+11
12	531	648	F	4_2	
12	503	612	F	5_3^2	9+14
12	512	631	M	5_3	10+11
12	474	584	F	5_3	6+10
12	501	606	F	R_3	
12	450	544	F	5_3	9+11
12	506	620	F	5_3	8+13
12	513	630	M	4_2	
12	450	561	F	5_3^2	11+9
12	463	563	F	5_3	10+11
12	465	579	M	5_3	9+11
12	498	604	F	5_3	8+13
12	585	717	M	6_3	
12	502	612	F	5_2	
12	512	629	M	6_3^2	
12	479	587	M	5_3	9+13
12	537	668	M	5_2	
12	459	571	M	5_3^2	8+11
12	501	620	M	5_3	9+11
12	460	557	F	5_3	10+17
12	488	596	F	5_3	11+12
July 13	507	612	F	5_3	8+14
13	427	517	F	R_3	
13	453	550	F	5_3	8+13
13	525	645	F	5_2^3	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 13	528	632	F	6_3	
13	547	655	M	5_2	
13	498	600	F	5_2	
13	457	552	F	5_3	7+13
13	450	557	F	5_3	8+9
13	475	577	F	4_2	
13	520	638	M	5_3	10+10
13	462	567	F	5_3	7+13
July 15	509	622	M	5_2	
15	508	627	F	5_2	
15	494	606	M	5_3	10+13
15	500	610	F	5_2	
15	504	617	M	5_3	11+11
15	485	592	F	4_2	
15	513	617	F	5_2	
15	491	593	F	5_3	8+12
15	526	663	M	6_3	
July 16	470	576	M	4_2	
16	513	635	M	6_3	
16	448	660	F	6_3	
16	486	592	M	5_3	8+11
16	497	606	F	5_3	8+12
16	483	598	M	4_2	
16	524	633	F	5_3	8+11
16	492	609	M	4_2	
16	417	518	F	5_3	8+12
16	508	627	M	5_2	
16	477	582	F	R^2	
16	497	613	F	R	
16	468	565	M	5_3	10+12
16	470	564	F	4_2	
16	461	564	F	5_3	10+12
16	516	629	M	4_2	
16	468	566	F	4_2	
16	508	621	M	4_2	
16	462	553	F	5_3	8+8
16	541	661	F	5_3	12+16
16	481	574	F	4_2	
16	503	602	F	4_2	
16	566	695	M	4_2	
16	493	602	F	5_2	7+13
16	476	580	F	[illegible]	
16	489	585	F	4_2	
16	493	600	M	5_2	7+11
16	443	521	F	4_2	
16	528	632	F	5_2	
July 17	506	615	F	5_3	10+12
17	446	556	F	5_3	
17	498	605	F	4_2	
17	500	606	F	5_3	9+13
17	544	656	M	5_3	9+10
17	473	587	M	5_3	9+11
17	574	703	M	6_3	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 17	480	590	M	5_3	8+12
17	510	630	M	4_2	
17	477	575	F	4_2	
17	480	583	F	5_3	9+10
17	559	688	M	5_2	
17	512	633	M	5_3	10+13
17	498	603	F	4_2	
17	443	536	F	5_2	6+12
17	569	697	M	6_3	
17	440	535	F	4_2	
17	488	581	F	4_2	
17	558	676	F	5_2	
17	482	579	F	4_2	
17	500	606	F	5_2	
July 18	470	582	F	4_2	
18	472	588	M	4_2	
18	495	605	F	5_3	9+11
18	510	624	M	5_2	
18	430	525	F	R	
18	445	551	M	4	
18	512	626	M	5_3	8+10
18	493	602	M	4_2	
18	476	583	F	4_2	
18	468	565	F	5_3	7+11
18	373	464	M	4_2	
18	482	580	M	4_2	
18	458	558	M	4_2	
18	520	618	F	4_2	
18	445	545	M	5_3	6+8
18	485	585	M	5_3	9+10
18	472	580	M	4_2	
18	471	573	F	5_3	9+10
18	478	580	M	5_3	9+10
18	480	583	F	4_2	
18	500	625	M	5_2	
18	470	577	M	4_2	
18	536	631	M	5_2	
18	525	655	M	5_2	
18	600	726	M	6_2	
18	534	662	M	5_3	
18	528	650	F	5_2	
18	492	601	F	5_3	8+9
18	438	671	M	5_2	
18	582	714	M	6_3	
18	497	604	M	4_2	
18	532	647	F	5_2	
18	563	676	F	6_2	
18	493	611	M	5_3	9+14
18	525	641	M	4_2	
18	509	622	M	4_2	
18	467	577	M	4_2	
18	469	568	F	5_2	9+11
18	530	640	F	5_2	

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 18	491	600	F	5_2	
18	520	653	M	5_2	
18	493	603	F	5_2	10+13
18	451	544	F	4_3	
18	483	602	M	5_2	6+10
18	583	727	M	6_3	
July 19	460	562	F	4_3	
19	527	650	M	6_2	
19	473	575	F	5_3	9+11
19	492	600	M	4_3	
19	465	570	F	4_2	
19	472	574	F	4_2	
19	445	552	F	4_2	
19	496	602	M	5_2	5+8
19	492	601	F	5_3	9+11
19	545	665	M	5_3	
19	533	653	F	4_2	
19	502	612	F	5_2	
19	497	607	F	4_2	
19	512	618	F	5_2	5+9
19	528	642	M	5_3	
19	460	562	F	5_2	7+11
19	500	616	F	5_3	9+12
19	470	567	F	4_3	
19	500	626	M	5_2	13+14
19	480	577	F	5_3	8+14
19	446	538	F	4_3	
19	501	621	M	5_2	8+11
19	444	546	M	5_3	5+9
19	491	596	F	5_3	8+12
19	477	592	M	5_3	5+10
19	480	586	F	5_3	8+12
19	465	570	F	4_3	
19	488	600	M	5_2	5+9
19	527	663	F	5_3	
19	502	601	M	4_2	
19	511	620	F	6_2	
19	485	595	M	4_3	
19	545	673	M	5_2	12+15
19	518	630	F	5_3	10+12
19	471	668	F	5_3	11+11
July 20	463	561	F	4_3	
20	470	573	F	4_2	
20	460	568	F	5_2	8+9
20	461	553	F	5_3	9+9
20	508	620	M	5_3	10+10
20	558	688	M	5_3	10+15
20	507	610	F	5_3	
20	513	627	M	5_3	
July 22	520	622	F	5_3	9+10
22	455	555	F	5_3	9+14
22	449	547	F	5_3	7+9
22	440	535	F	5_3	6+6

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 22	521	641	M	5_3	9+9
22	457	551	F	4_2	
22	422	514	M	5_3	5+8
22	504	612	F	5_3	10+11
July 23	471	571	M	4_2	
23	500	604	F	5_2	
23	525	635	M	5_3	10+10
23	550	678	M	5_3	9+13
23	542	662	M	4_2	
23	500	615	M	5_3	9+12
23	461	557	F	5_3	7+10
July 24	545	669	M	4_2	
24	498	595	F	5_3	7+9
24	504	609	M	5_3	8+11
24	518	630	F	5_3	10+11
24	485	583	F	4_2	
24	560	698	M	5_2	
24	535	657	M	5_2	
24	495	600	F	5_3	8+10
24	470	565	F	R^3	
24	455	545	F	5_3	8+11
24	517	633	M	5_3	10+10
24	518	622	F	5_3	10+13
24	495	585	F	4_2	
July 25	515	630	M	4_2	
25	530	653	M	5_3	6+13
25	450	540	F	4_2	
25	515	627	M	5_3	8+10
25	550	673	M	5_3	7+12
25	585	623	M	6_3	
25	520	650	M	5_3	9+11
25	520	650	M	5_3	7+14
25	510	645	F	5_3	8+12
25	505	625	M	5_3	10+12
25	570	683	F	6_3	
25	550	670	M	5_3	10+12
25	470	578	M	4_2	
25	500	622	M	5_3	6+11
25	510	620	M	4_2	
25	483	595	M	4_2	
25	505	629	M	5_3	7+11
25	490	605	M	4_2	
25	530	635	F	5_3	9+13
25	451	549	F	4_2	
25	438	520	F	4_2	
25	481	578	F	5_2	9+10
25	500	605	F	5_3	9+10
25	535	660	F	5_3	7+12
25	525	628	F	5_3	9+11
25	520	630	M	4_2	
25	505	625	M	5_3	5+7
25	520	623	F	5_3	9+12
25	545	673	M	5_3	10+11

APPENDIX 9. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	AGE	CIRCULI COUNTS
July 25	410	500	F	4_2	
25	503	600	F	R^2	
July 26	460	555	F	4_2	
26	495	605	M	4_2	
26	490	600	F	5_3	10+7
26	465	550	F	5_3	6+9
26	575	698	M	6_3	
26	520	632	M	6_3	
26	465	568	F	R^3	
26	505	618	M	5_3	8+13
26	525	623	M	5_3	11+8
26	475	573	F	4_2	
26	443	535	F	4_2	
26	485	600	M	5_3	10+10
26	470	565	F	4_2	
26	470	570	F	5_3	8+9
26	440	535	F	5_3	6+10
26	450	553	F	5_3	7+8
26	453	550	F	W^3	
26	535	665	M	5_3	7+12
26	490	600	M	4_2	
July 27	540	664	F	6_3	
July 28	525	653	M	5_3	8+12
28	505	620	M	5_3	8+11
28	533	658	M	5_3	6+13
28	530	645	M	5_3	10+9
28	490	600	M	5_3	7+9
28	460	550	F	5_3	8+8
28	450	550	F	5_3	8+8
28	440	530	F	5_3	9+16
28	500	605	F	5_3	8+12
28	450	560	F	5_3	4+13
28	435	535	M	5_3	9+10
28	455	575	M	5_3	8+11
28	540	660	M	5_3	7+12
July 29	472	580	M	5_3	5+11
29	493	609	M	5_3	5+12
29	445	535	F	5_3	7+10
29	470	577	F	4_2	
29	418	501	F	5_2	9+13
29	455	556	M	5_3	5+8
29	444	547	F	5_3	4+11

APPENDIX 10. 1987 Nass gillnet test fishery chinook age, sex and length data.

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	COLOUR	AGE
June 6	798	970+	F	R	5_2
6	674	849	M	R	5_2
June 7	711	922	M	W	6_2
June 8	854	970+	F	R	R_2
June 9	681	844	M	W	R
June 15	788	970+	F	R	R
15	524	666	M	R	4_2
15	691	584	M	R	R_2
15	703	856	F	R	5_2
June 16	737	906	F	R	5_2
16	765	945	M	W	5_2
16	635	790	M	R	5_2
16	775	945	F	R	5_2
16	763	927	F	R	5_2
16	903	970+	F	R	6_2
16	744	931	F	R	5_2
16	857	970+	M	W	6_2
16	873	970+	M	R	R_2
16	741	914	M	R	5_2
16	840	970+	F	R	6_2
16	758	944	F	R	5_2
16	810	970+	M	R	5_2
June 17	868	970+	F	R	R_2
17	641	780	M	R	R
17	527	664	M	R	4_2
17	647	805	M	R	5_2
17	698	874	F	R	5_2
17	785	970+	F	R	6_2
17	781	965	M	R	5_2
17	770	970+	M	R	5_2
17	606	762	M	R	5_2
17	714	879	F	R	5_2
17	805	970+	F	R	R_2
17	797	970+	M	R	6_2
17	755	936	F	W	5_2
17	527	653	M	R	4_2
17	697	863	F	R	R_2
17	810	970+	F	R	R
17	890	970+	F	W	R
17	836	970+	F	W	6_2
17	768	952	F	R	5_2
17	812	970+	F	R	5_2
17	758	934	M	R	R_2
17	762	948	M	R	6_2
17	798	970+	F	R	6_2
17	752	921	F	R	5_2
17	733	901	M	R	R_2
17	693	838	F	R	5_2
17	724	884	F	R	5_2
17	612	758	M	R	5_2
17	641	791	M	R	R_2
17	645	811	M	R	5_2
17	601	742	M	R	5_2

APPENDIX 10. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	COLOUR	AGE
June 18	586	749	M	R	5_2
18	762	930	F	R	6_2
18	716	872	M	R	5_2
18	712	867	F	R	R^2
18	784	960	F	R	R
18	761	950	F	R	5_1
18	648	813	M	R	5_2
18	847	970+	F	R	R^2
18	691	970+	M	R	5_2
18	601	758	M	R	5_2
June 19	747	901	F	R	R^2
19	837	970+	F	R	6_2
June 24	783	970+	M	R	6_2
24	732	900	F	R	5_2
June 27	649	826	M	R	5_2
27	800	970+	F	R	5_2
27	783	960	F	R	R^2
June 28	735	932	M	R	R
28	611	756	M	R	R
28	626	786	M	R	5_2
June 30	700	871	F	R	5_2
July 5	757	942	M	R	R^2
July 6	778	970+	M	R	5_2
6	736	908	F	R	5_2
6	612	750	M	R	5_2
July 7	812	970+	F	R	6_2
7	590	745	M	R	5_2
July 10	746	941	F	R	R^2
10	774	970+	M	R	6_2
10	709	879	F	W	5_2
10	697	870	M	R	R^2
July 11	542	675	M	R	4_2
11	776	952	F	R	R^2
11	824	970+	F	W	R
July 13	680	858	M	R	5_2
13	708	889	F	R	5_2
13	728	903	F	R	R^2
13	783	960	F	R	6_2
July 14	633	798	M	W	5_2
14	551	696	M	R	R^2
14	603	754	M	W	4_2
14	781	970+	F	W	6_2
14	788	969	F	R	6_2
July 17	636	823	M	W	5_2
17	620	773	F	R	R^2
July 18	580	735	F	W	R
July 19	810	970+	M	W	6_2
19	723	898	F	R	5_2
July 21	759	949	F	W	6_2
21	560	715	M	R	4_2
21	555	697	M	W	4_2
July 22	687	846	F	R	R^2
July 24	606	733	F	R	4_2

APPENDIX 10. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	COLOUR	AGE
July 26	630	811	M	R	R
July 28	613	760	M	W	4_2
July 29	746	933	F	R	R^2

APPENDIX 11. 1988 Nass gillnet test fishery chinook age, sex and length data.

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	COLOUR	AGE
June 6	781	970+	F	R	6_2
June 8	831	970+	F	R	R^2
June 9	557	693	M	R	4_2
9	792	970+	F	R	6^2
9	792	970+	F	R	6^2
June 10	543	672	M	R	3^1
June 11	839	970+	F	R	6^2
June 12	807	970+	F	R	6^2
12	715	880	F	W	R^2
12	847	970+	F	R	R
12	807	970+	F	R	6_2
12	675	865	M	R	5^2
June 13	832	970+	M	R	R^2
13	812	970+	F	W	6_2
13	798	970+	F	R	6^2
13	758	965+	M	R	5^2
13	743	908	F	R	4^2
13	717	878	M	R	R^1
13	572	707	M	R	4_2
13	552	680	M	R	4^2
June 14	824	970+	M	R	6^2
14	844	970+	F	R	6^2
14	826	970+	M	R	6^2
14	745	917	M	R	5^2
14	717	882	F	R	5^2
June 17	675	825	M	R	5^2
17	785	955	F	W	6^2
June 18	855	970+	F	R	6^2
18	845	970+	F	R	6^2
June 19	780	940	F	R	6^2
19	718	885	F	R	5^2
19	690	845	F	R	5^2
19	659	807	M	R	5^2
June 20	838	970+	M	R	6^2
20	732	894	F	R	R^2
20	680	845	F	R	R
20	800	970+	M	R	6_2
20	815	970+	M	R	6^2
June 21	935	1000+	M	W	6^2
21	801	970+	F	R	6^2
21	804	970+	F	R	R^2
June 21	813	970+	F	R	6_2
21	830	970+	F	R	6^2
21	844	970+	F	R	5^2
21	617	762	M	R	R^1
21	625	778	M	R	5_2
21	745	825	M	R	4^2
21	813	970	F	R	6^1
21	763	950	F	R	6^2
21	780	960	M	R	5^2
21	776	955	F	R	6^2
21	860	970+	M	W	6^2
21	918	970+	M	R	6^2

APPENDIX 11. Continued

DATE	HYPURAL LENGTH	NOSE FORK LENGTH	SEX	COLOUR	AGE
June 24	726	878	F	R	R
24	698	863	F	W	5_2
24	695	882	F	W	5_2^2
24	673	841	M	R	5_2^2
24	882	971	M	R	6_2^2
June 25	688	850	F	R	R_2^2
25	769	941	F	R	6_2
25	661	828	M	W	5_2^2
June 26	695	882	F	R	5_2^2
June 27	833	1015	F	R	R_2^2
27	812	1057	F	R	6_2
27	675	836	F	R	5_2^2
June 29	769	950	F	R	R_2^2
29	704	880	M	R	5_2
29	645	817	M	R	5_2^2
July 2	915	1153	M	R	6_2^2
2	828	1037	F	R	6_2^2
July 3	855	1050	F	R	R_2^2
3	693	845	M	W	6_2
3	645	788	M	W	4_1^2
3	809	993	F	R	6_2^1
3	728	920	F	R	R_2^2
July 4	708	860	M	W	5_1
July 5	649	810	F	R	R_1
July 12	775	950	F	W	R
July 18	810	1030	F	R	6_2
18	821	999	F	W	6_2^2
18	921	1126	M	W	R_2^2
18	771	945	F	W	5_2
18	755	912	F	W	5_2^2
July 22	800	985	F	R	
22	795	959	F	W	
July 23	840	980	M	W	
JUly 26	710	800	M	R	
JUly 27	630	825	M	W	
July 28	980	1200	M	W	

APPENDIX 12. Weekly summary of sockeye age composition data from the Nass test fishery, 1987.

WEEK ENDING	SEX	3 1 #	3 1 %	4 1 #	4 1 %	4 2 #	4 2 %	4 3 #	4 3 %	5 2 #	5 2 %	5 3 #	5 3 %	6 3 #	6 3 %	TOTAL
June 6	M			1	100.0											1
June 13	M			1	100.0											1
	F									1	100.0					1
TOTAL										1	50.0					2
June 20	M			5	19.2					15	57.7	5	19.2	1	3.8	26
	F	2	3.5	14	24.6	3	5.3			17	29.8	16	28.1	5	8.8	57
TOTAL		2	2.4	19	22.9	3	3.6			32	38.6	21	25.3	6	7.2	83
June 27	M			4	16.7	1	4.2			5	20.8	11	45.8	3	12.5	24
	F	1	1.8	10	17.5	3	5.3			17	29.8	24	42.1	2	3.5	57
TOTAL		1	1.2	14	17.3	4	4.9			22	27.2	35	43.2	5	6.2	81
July 4	M			3	8.8	5	14.7			7	20.6	16	47.1	3	8.8	34
	F	1	2.1	7	14.6	7	14.6			9	18.8	22	45.8	2	4.2	48
TOTAL		1	1.2	10	12.2	12	14.6			16	19.5	38	46.3	5	6.1	82
July 11	M	1	1.6			13	17.8			25	34.2	31	42.5	3	4.1	73
	F			2	1.9	34	33.0	2	1.9	22	21.4	40	38.8	3	2.9	103
TOTAL		1	0.6	2	1.1	47	26.7	2	1.1	47	26.7	71	40.3	6	3.4	176
July 18	M					9	8.9			51	50.5	29	28.7	12	11.9	101
	F					14	13.6	3	2.9	39	37.9	44	42.7	3	2.9	103
TOTAL						23	11.3	3	1.5	90	44.1	73	35.8	15	7.4	204
July 25	M					4	5.8			34	49.3	27	39.1	4	5.8	69
	F					18	18.0	2	2.0	38	38.0	38	38.0	4	4.0	100
TOTAL						22	13.0	2	1.2	72	42.6	65	38.5	8	4.7	169
Aug. 1	M					4	8.3	1	2.1	15	31.3	20	41.7	8	16.7	48
	F					5	11.1	1	2.2	7	15.6	31	68.9	1	2.2	45
TOTAL						9	9.7	2	2.2	22	23.7	51	54.8	9	9.7	93
TOTAL MALE		1	0.3	14	3.7	36	9.5	1	0.3	152	40.3	139	36.9	34	9.0	377
TOTAL FEMALE		4	0.8	33	6.4	84	16.3	8	1.6	150	29.2	215	41.8	20	3.9	514
TOTAL		5	0.6	47	5.3	120	13.5	9	1.0	302	33.9	354	39.7	54	6.1	891

APPENDIX 13. Weekly summary of sockeye age composition data from the Nass test fishery, 1988.

WEEK ENDING	SEX	3_1 #	3_1 %	4_1 #	4_1 %	4_2 #	4_2 %	5_2 #	5_2 %	5_3 #	5_3 %	6_3 #	6_3 %	TOTAL
June 11	scale information lost													
June 18	M			2	50.0			1	25.0			1	25.0	4
	F			3	27.3			6	54.5	1	9.1	1	9.1	11
TOTAL				5	33.3			7	46.7	1	6.7	2	13.3	15
June 25	M	10	19.6	7	13.7	4	7.8	15	29.4	9	17.6	6	11.8	51
	F	5	5.1	15	15.3	15	15.3	24	24.5	31	31.6	8	8.2	98
TOTAL		15	10.1	22	14.8	19	12.8	39	26.2	40	26.8	14	9.4	149
July 2	M	5		5	8.6	7	12.1	10	17.2	14	24.1	7	12.1	58
	F	7	3.7	14	7.4	30	15.9	29	15.3	96	50.8	13	6.9	189
TOTAL		12	4.9	19	7.7	37	15.0	39	15.8	110	44.5	20	8.1	247
July 9	M	1	1.5			10	14.9	15	22.4	38	56.7	3	4.5	67
	F	0		1	0.7	30	20.8	7	4.9	104	72.2	2	1.4	144
TOTAL		1	0.5	1	0.5	40	19.0	22	10.4	142	67.3	5	2.4	211
July 16	M					23	24.2	20	21.1	42	44.2	10	10.5	95
	F					35	26.7	14	10.7	76	58.0	6	4.6	131
TOTAL						58	25.7	34	15.0	118	52.2	16	7.1	226
July 23	M					18	30.5	10	16.9	25	42.4	6	10.2	59
	F					23	35.9	9	14.1	30	46.9	2	3.1	64
TOTAL						41	33.3	19	15.4	55	44.7	8	6.5	123
July 30	M					9	21.4	2	4.8	28	66.7	3	7.1	42
	F					11	28.9			25	65.8	2	5.3	38
TOTAL						20	25.0	2	2.5	53	66.3	5	6.3	80
TOTAL	MALE	16	4.3	14	3.7	71	18.9	73	19.5	156	41.6	36	9.6	375
TOTAL	FEMALE	12	1.8	33	4.9	144	21.3	89	13.2	363	53.8	34	5.0	675
TOTAL		28	2.7	47	4.5	215	20.5	162	15.4	510	48.6	70	6.7	1050

APPENDIX 14. Weekly summary of sockeye age/length data from the Nass test fishery, 1987.

WEEK ENDING	SEX	3_1		4_1		4_2		4_3		5_2		5_3		6_3	
		M.P.	W/F	M.P.	W/F	M.P.	W/F	M.P.	W/F	M.P.	W/F	M.P.	W/F	M.P.	W/F
June 6	M			511	647										
June 13	M			490	617										
	F									507	617				
June 20	M			500	623										
	F	471	585	472	583	469	576			520	643	505	629	565	690
										502	617	502	620	526	645
June 27	M			464	574	468	583								
	F	502	604	485	599	463	567			506	635	493	620	525	643
										513	633	488	597	509	634
July 4	M			511	645	484	592								
	F	438	537	480	595	458	598			534	662	501	614	533	655
										519	632	490	597	529	647
July 11	M	423	534			471	583								
	F			481	599	460	566	337	416	535	662	494	613	534	666
										507	626	487	598	528	648
July 18	M					468	574								
	F					472	567	308	387	533	658	512	628	550	672
										506	624	495	607	547	670
July 25	M					453	556								
	F					447	548	336	410	532	655	512	634	548	686
										510	627	488	601	547	668
Aug. 1	M					482	594	314	387	522	648	502	623	535	669
	F					449	553	337	387	509	628	491	604	534	662
AVERAGE	M	423	534	495	621	471	580	314	387	526	652	503	623	541	669
	F	470	575	480	592	460	568	364	444	509	626	492	603	531	653

NOTE : Lengths are in millimeters.

APPENDIX 15. Weekly summary of sockey age/length data from the Nass test fishery, 1988.

WEEK ENDING	SEX	311 N.P.	311 M/F	411 N.P.	411 M/F	412 N.P.	412 M/F	512 N.P.	512 M/F	513 N.P.	513 M/F	613 N.P.	613 M/F
June 11	scale information lost												
June 18	M			524	654			512	646			540	672
	F			467	570			497	607	492	597	518	630
June 25	M	418	519	493	611	493	604	524	650	500	611	526	667
	F	416	510	481	582	483	585	517	632	478	581	524	642
July 2	M	425	535	502	628	477	587	529	675	490	603	564	689
	F	422	515	473	594	468	569	518	631	486	591	533	648
July 9	M	355	433			485	591	530	649	498	609	550	667
	F			490	590	465	563	505	611	480	581	521	633
July 16	M					490	595	525	651	497	606	551	679
	F					463	562	512	625	475	576	514	641
July 23	M					481	589	520	652	498	612	573	703
	F					475	577	519	652	480	587	537	648
July 30	M					502	615	548	678	509	626	560	651
	F					459	553			480	582	555	674
TOTAL	MALE	416	518	501	623	487	595	526	654	499	611	553	679
TOTAL	FEMALE	420	512	477	586	468	567	514	629	479	583	528	645
	TOTAL	418	516	484	597	475	576	587	640	494	602	541	662

NOTE : Lengths are in millimeters.

APPENDIX 16. Relationship between annual Nass test fishery index of spawning escapement and recorded annual escapement from stream surveys from 1963 to 1988.

YEAR	ESCAPEMENT PAST TEST FISHERY	TOTAL TEST FISHERY INDEX	SPAWNERS PER INDEX	PREDICTED ESCAPEMENT
1963	N/A	182.70	--	--
1964	163845	269.73	607	134890
1965	141242	222.81	634	111405
1966	113039	181.98	621	90990
1967	86713	190.72	455	95360
1968	104542	265.26	394	132730
1969	182312	253.48	719	--
1970	119112	288.49	413	115396
1971	252844	362.95	697	145180
1972	181230	235.18	771	94072
1973	292331	488.56	598	262625
1974	201403	319.69	630	175610
1975	85674	215.76	397	118668
1976	165305	303.76	544	167068
1977	424821	466.28	911	256454
1978	156818	269.70	581	148335
1979	222751	284.56	783	182418
1980	163088	252.84	645	151704
1981	265596	387.38	686	259746
1982	321251	427.22	752	260450
1983	192782	284.90	677	174599
1984	193650	321.51	602	198050
1985	373349	416.39	897	254831
1986	197072	279.98	704	181987
1987	191160	228.09	838	150670
1988	145457	258.82	562	181174
AVG 64-88	197495	299.04	645	161776
AVG 64-74	167147	279.90	594	123478
AVG 75-84	219174	321.39	658	191764
AVG 79-88	226616	314.17	714	199563